POTENTIAL SOURCES OF OBSERVER BIAS IN OBSERVATIONAL STUDIES OF POLICE

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Abstract

Very little research has focused on the potential for observer bias in observational studies of police because "...there are almost no systematic data with respect to observer effects in observation studies in natural settings" (Reiss 1968:358). The purpose of this paper is to synthesize fragmented accounts of observer bias in the field research literature by: (1) defining and describing four types of observer bias; (2) operationalizing one type of observer bias (reactivity) by identifying key independent and dependent variables; and (3) deriving hypotheses which can be tested using qualitative and quantitative data from a large scale observational study of police (Project on Policing Neighborhoods, or POPN).

An in-depth review of POPN qualitative data on reactivity for patrol officers revealed that reactivity is often embedded within social exchanges with observers which include: (1) social cues from patrol officers; or (2) explicit changes in officer behavior. POPN descriptive data was also converted into a coding scheme in order to document the prevalence of social cues which were potential sources of reactivity. One key finding from the qualitative analysis was that the level of reactivity within observational data (in the form of social cues or explicit changes in patrol officer behavior) depends on the specificity of the data.

Multivariate analyses were also conducted in order to determine if the qualitative coding (or selected themes derived from the qualitative data on reactivity) or other potential sources of reactivity derived from the field research literature (i.e., observer sex, status congruency, time in the field) were isolated instances or exerting a systematic effect on patrol officer behavior in the form of significant effects within multivariate equations. Multivariate analyses were performed at three different units of analysis and examined multiple aspects of patrol officer behavior. Encounter level multivariate analyses focused on patrol officer's decision to arrest and use of force. Ride level multivariate analyses looked at the level of aggressive patrol and amount of goofing off an officer engaged in per shift. Ride segment multivariate analyses focused on variation in patrol officer behavior within a ride. Selected findings from the multivariate analyses show that; (1) patrol officers who express concerns about safety are less likely to arrest suspects; (2) patrol officers are more likely to use force against citizens if the observer

helps the police officer in some capacity over the course of the shift; and (3) patrol officers are less likely to use force against citizens if they are less familiar with the observer. In addition, patrol officer behavior during the first hour of the shift is significantly different than the rest of the shift.

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CHAPTER ONE: Introduction

Observational data have formed the foundation of a large body of our knowledge about the behavior of criminals and criminal justice actors. Much of the ground breaking theoretical work of the Chicago School was based on participant observation data (see Bogdan 1972 for a review). Similarly, the findings from the American Bar Foundation's (ABF) exploratory field research project underscored the importance of field research as a method of studying discretionary decision making by criminal justice actors (Walker 1992; see also Manning 1972). A lack of field observation before the ABF survey allowed researchers to believe that there was no discretion in the criminal justice system. As a result of the ABF survey, observational data have been collected in more recent research on the police, courts, and correctional personnel to systematically study the discretionary decision making of criminal justice actors (see McCall 1978 for a review).

Systematic social observation (SSO) of police is a method to collect qualitative and quantitative police observational data and cross reference it with standardized interviews with police officers, telephone surveys of random samples of citizens within beats in the jurisdictions under study, and organizational characteristics of the department. SSO links data across several units of analysis (e.g., situational factors, officer attitudes, neighborhood characteristics, and organizational characteristics) in order to explain variation in discretionary decision making by police (Reiss 1967, 1971;

Sherman 1980; Mastrofski and Parks 1990). Recent quantitative analyses of police behavior have utilized SSO data in order to study the complex and nested nature of the context of discretionary decision making by police (see Mastrofski and Parks 1990 for a review).

The observational data in SSO of police is critical in terms of increasing our understanding of the motivating factors behind police behavior. Situational factors (e.g., demeanor of the suspect, the seriousness of the offense, the number of bystanders, and the location of the encounter) are the most powerful predictors of police behavior. Observers accompany police officers as they do their jobs in order to witness and document police behavior without relying upon others to describe it. This observational data is a powerful tool in the study of police discretion since a large amount of police behavior falls short of the paper trail of official actions taken by police officers (e.g., arrest and report writing). Similarly, the most direct method to document the dynamics of police citizen encounters (i.e., situational factors) is through direct observation. Unfortunately, critics have directly challenged the face validity of field research and observational data.

Criminal justice scholars have recognized the potentially disruptive influence an observer's presence can have on observed behavior and the possibility of observer error while recording data. However, "...there are almost no systematic data with respect to observer effects in observation studies in natural settings" (Reiss 1968:358). Few criminal justice researchers have examined the methodological issues related to observational data beyond anecdotal and fragmented accounts of problems encountered while in the field (see Reiss 1968, 1971; Manning 1976; Walker 1992; Skolnick 1966; Ferrell 1997; Van Maanen 1988; and Hunt 1989. For a general discussion of this issue, see Pearson 1993; May 1993;

Kleinman 1991). Other fields have categorized field research as a "marginal methodology" which produces data of questionable quality (Bogdan 1972; McCall and Simmons 1969).

Skepticism about the quality of observational data

There are a number of factors that contribute to feelings of skepticism about the quality of observational field research. First, field researchers have largely ignored the methodological problems of observational data until relatively recently. Criminal justice researchers have engaged in field research for a relatively short period of time compared to anthropologists. Although anthropologist and ethnographers have collected observational data dating back as early at the fifth century B.C., more rigorous field research was conducted during the eighteenth and nineteenth centuries (see Wax 1971:Chapter 3 for an overview). Surprisingly, anthropologist and ethnographers have uncritically accepted the validity of field research until 30 to 40 years ago (Adler and Adler 1987b; Hunt 1989; Myerhoff and Ruby 1982). An overview of the field research conducted by ethnographers and anthropologists reveals a pattern of ignoring methodological problems of observational data by: (1) the use of an objective writing style which reinforces the image of an objective field researcher (Van Maanen 1988; Marcus and Cushman 1982; Hunt 1989; Geertz 1973, 1983); (2) not mentioning the observer in the text of ethnographies in order to downplay concerns about the objectivity of the observer and the validity of observational data (Van Maanen 1988; Dumont 1978; Parssinen 1983; Tedlock 1983); and (3) publishing private diaries (e.g., Malinowski 1967; Rabbinow 1977) which documented the methodological problems and emotional stressors of prolonged field research (e.g., overidentifying with subjects, breakdowns in communication, feelings of fear, disgust, and anger, and irrational paranoia) separate from (or buried in the appendices of) published ethnographies (Cicourel

1964; Myeroff and Ruby 1982; Hunt 1989; see Béteille and Madan 1975 for a review).

In short,

> The sparsity of writings on anthropological field methods and field experiences is explained by, first, a fieldwork culture that underemphasizes methodology and supports private rather than public communications of field experiences, and second, the 'rewards' field workers receive for keeping their errors and their personalities hidden and for maintaining a romantic attachment to the fieldwork mystique (Freilich 1970:36)

Stavrianos (1950, cited by Hyman et al., 1954:5) examined all articles, which utilized field research in one professional anthropological journal over a fifteen month period. Five out of seven studies did not describe the method of data collection. Baldamus (1972:289, 295, cited by Punch, 1989:18) commented on the "highly insecure, frequently trivial, and unaccountably erratic descriptions of their unofficial methods," and surmised that much "remains hidden away in notebooks, research files, and preliminary drafts."

Formal accounts of fieldwork are written in an impersonal style, which depicts the researcher as a mechanistic, unbiased observer of a foreign culture. The writing style and the exclusion of the observer from the text was used to reinforce the image of field research as an objective and straightforward process devoid of bias (Dumont 1978). One negative consequence of the writing style of early ethnographers was that it was impossible to work back from the final account to replicate the process of fieldwork in a way analogous to replicating an experiment in the hard sciences (see Marcus and Cushman 1982). The logic and chronology implicit in published works suggested that data collection was unproblematic and irrelevant to the findings (May 1993). As a result, errors in observation usually cannot be detected or corrected because these oversights cannot be identified since the results are presented as a plausible unit (Friedrichs and Ludtke 1975; Hyman et al. 1954).

Second, there are no standardized procedures for the collection of valid observational data (Hyman et al. 1954; Manning 1972). The realism and detail of description has allowed anthropologists to present their results as self-validating (Geertz 1973). However,

> ...progress has been made toward awareness of the practical and methodological difficulties of participant observation, but very little has been done toward the specification of a theory which might be translated into operational procedures to be used in advance of obtaining the data (Cicourel 1964:65).

Each individual starts from scratch and learns "on the fly" while in the field (Norris 1993; Gronewold 1974). The lack of a formal apprenticeship for new field researchers is partially due to the experientially contingent nature of most exploratory field research projects (Van Maanen 1988). This tradition was started by early North American anthropologists who believed that fieldwork was such a straightforward enterprise that there was little reason for formal training, special expertise, and specific advice for students venturing out into the field for the first time (Nader 1970). The logic of this practice rested on the evidence provided from published research biographies which suggested that field researchers must react to unexpected circumstances and modify the research topic during the course of field research (Hammersley and Atkinson 1983; McCall and Simmons 1969). One consequence of this tradition of non-advice is that methodological discussions of observational studies are superficial and gloss over the complexities of fieldwork (Cicourel 1964; Manning 1976; Van Maanen 1982; Berreman 1962; Bèteille and Madan 1975).

Third, "ethnographies of any sort are always subject to multiple interpretations. They are never beyond controversy or debate" (Van Maanen 1988; see also Emerson 1983a). More specifically, researchers studying the same culture at different points in time have had

contradictory findings (e.g., Madan 1975; Warren 1988; Bennett 1946). For example, Mead (1923) conducted fieldwork in Samoa on adolescent behavior during the mid-1920s. Mead concluded that Samoan culture (and adolescence) was free from any significant stress, conflict or competition. Sexual experimentation and casual sex were common among adults and adolescents. Rape was completely foreign to Samoans. Samoan culture even eliminated feelings of jealousy since even married couples made no claims of fidelity. Her book, Coming of Age in Samoa, became an instant classic in cultural anthropology and went on to become one of the most widely read anthropological books by the 1960s.

Freeman (1983) conducted research in the same areas of Samoa between 1940 and 1981 and refuted Mead's findings, arguing that the intellectual community accepted Mead's findings as fact without question. Freeman's field research as well as the extensive literature on Samoan culture directly contradicts Mead's findings (see Freeman 1983:Part III). Samoan parents were extremely strict and insisted that daughters be virgins before marriage. Samoans also engaged in acts of aggressive behavior (including violent crimes) and warfare. Freeman argued that the difference in findings was not a historical artifact since there was no reason to believe that Samoan culture changed significantly during the fifteen years between his field research and Mead's field work (relatively short by comparison)[1] (for a critique of Freeman, see Kirk and Miller 1986; Holmes 1987). In short, the "Freeman-Mead debate" has caused anthropologists to question the validity of data obtained during field research since, in this case, replication produced contradictory results.[2]

Finally, and most importantly, critics of observational field work directly challenge the face validity of observational data. Assessing the reliability and validity of observational data is very difficult because the standard methods of assessing reliability and validity (i.e.,

test-retest and replication) do not apply to observational field work (see Emerson 1981; Freidrichs and Ludtke 1975; Freeman 1983; Mead 1973; Hunt 1989). The most serious methodological challenge aimed at observational data center around the concept of observer bias. Observers influence and are influenced by the people and events they observe (Schwartz and Schwartz 1955). Since the observer is part of the context of observed behavior, observers can potentially "bias" or contaminate observational data and undermine the reliability and validity of observational data. Observer bias could act as a systematic bias and mask or alter the true relationships between independent and dependent variables (Gove and Geerken 1977). This can lead to mistaken inferences being drawn from studies which utilize observational data.

SSO versus other field research projects

Observational data are typically collected as part of a participant observation or observational field research project. Participant observation or field research places an observer in the natural environment of the research subject in order to gather observational data. In addition, the field researcher conducts interviews to compliment direct observation of research subjects. The observer is the primary data collection instrument and faces challenges that are common to all observational studies. The researcher, a stranger, must document and describe the behavior of individuals under study while disrupting the normal flow of events as little as possible. The researcher also becomes part of the context of observation since s/he both changes and is changed by this process.

A typical field research project has no clearly formulated problem to be investigated at the beginning of the project. Similarly, there is often no specification of what will be observed and recorded and what will be ignored at the outset (Reiss 1971). A single

researcher conducts an exploratory (and relatively unstructured) observational study of a wide variety of settings ranging from anthropological studies of exotic primitive cultures to ethnographic studies of classrooms, mental institutions and the police. Ironically, one of the strengths of the anthropological and ethnographic field research literature is the diversity of settings because it suggests that observer bias is a problem which transcends the narrow (and unfocused) research interests of a typical field researcher. In addition, anthropologists and ethnographers have a centuries old history of conducting fieldwork. The accounts of these fieldworkers provide an important starting point for identifying and illustrating different forms of observer bias.

However, there are several important limitations of these small-scale participant observational studies. First, most field researchers give retrospective accounts of problems encountered in the field and observer bias. These retrospective accounts are usually recalled without the benefit of field notes since, as noted above, documenting problems encountered during field work was not considered noteworthy until relatively recently. Since memory decays over time (see Reiss 1968), these accounts could be distorted or exaggerated to an unknown degree. Second, and more importantly, retrospective accounts from exploratory studies give only anecdotal evidence of observer bias. Thus, the extent and overall effect of observer bias on the quality of observational data remains unknown.

Third, the lone researcher often relies heavily on informants (see Geertz 1973). When possible, the field researcher engages in first hand observation, but it is much more efficient to gather information on the behavior or culture of research subjects through retrospective accounts by key informants. For example, Mead stayed in Samoa a total of nine months, but the final five months of her stay occurred during the aftermath of a major

hurricane. Most adults spent their time rebuilding their homes, giving her little opportunity to directly observe Samoan ceremonies during this time and limiting her data to informant's accounts (Freeman 1983:71). The most common explanation for the many errors in Mead's depiction of Samoan culture and sexual mores advanced by Samoans themselves is, quite simply, that Mead's teenaged informants must have been lying to her during the interviews (Freeman 1983:288-91). The Samoans claimed that the teenaged girls were only amusing themselves and had no idea that their tales would ever be part of a book.

A greater reliance on direct observation of the Samoans may have allowed Mead to uncover the inconsistencies in the data obtained from her teenaged informants. A lone field researcher must make a choice between direct observation and relying on secondhand accounts. Given the limited amount of time that researchers have to collect data, the labor intensive nature of direct observation, and the breadth of the information included in published accounts, it is not surprising that at one time most anthropologists favored interviewing key informants over direct observation (Hammersley and Atkinson 1983).

Informal interviews with informants are an important validity check on direct observation and an avenue to investigate activities which could not be directly observed. However, it is difficult to separate where informants' accounts begin and direct observation end in the final, published product. In addition, informants do not represent a cross-section (or random sample) of the individuals under study since informants are recruited primarily on the basis of their personal relationship with the researcher. To wit, the more a study relies on informant accounts, the greater the chance of being duped or lied to and the more likely the findings do not represent an accurate depiction of the motives and behaviors of individuals under study.

SSO of police draws from a tradition of anthropological field research that conducts direct observation "in the field" (see Mastrofski et al. 1998b). Anthropologists study the cultures of tribes or clans in exotic locales by living with them and directly observing their behavior. This form of field research (a.k.a. ethnographic field research) has been utilized in some classic studies of policing in the 1960s and 1970s (e.g., Skolnick 1966). Typically, ethnographers do not develop standardized tactics for the collection of observational data before entering the field. Instead they rely on field experiences to guide who and what they study. Ethnographic field research generates richly descriptive accounts that are valuable in generating hypotheses during exploratory research.

Similarly, in SSO of police, observers accompany police officers during a shift. In the Project on Policing Neighborhoods (POPN), observers were instructed to accompany officers wherever they go unless the officers believe that safety is an issue. Much like ethnographers, observers make brief field notes on a small notepad during the shift in order to help them to reconstruct what they observe. Following each observation session, observers write detailed, semi-structured narrative descriptions of the events that occurred during the shift.[3] This qualitative data is very similar to the observational data collected by other ethnographers.

How SSO mitigates the problems of small-scale observational studies

Five aspects of SSO of police (standardized instruments, observer training, on-site supervision, the breadth of the data collected, and the large number of observers) differentiate SSO (and POPN more specifically) from ethnographic field research and mitigate many of the problems of the small-scale observational studies reviewed above. First, SSO develops standardized instruments to record observations systematically with the

ability to measure error. Before the start of fieldwork, researchers define the purpose of the study to limit and focus the scope of the observational data to be collected. Observers complete highly structured questionnaires about what they observed during a shift, in addition to the descriptive narratives in order to generate quantitative police observational data. A questionnaire very similar to a survey instrument is used to prompt the observer's memory and standardize the recording of the quantitative data (Mastrofski et al. 1998b). The items included on the observational questionnaire are limited to what an observer could reasonably recognize, recollect, and record accurately.

Second, observers were trained during a semester long course which covered topics ranging from the mechanical aspects of collecting observational data, problems which could occur while in the field as well as discussion of potential inconsistencies in coding police and citizen behavior during police-citizen encounters. Potential observers were also shown a number of prerecorded videos of incidents and then asked to compile a descriptive narrative and code quantitative data based on the standardized instruments. The instructor of the course compared observations of several observers to estimate the reliability of each potential observer and scrutinized each observer's coding for inconsistencies. Observers with reliable coding were selected for fieldwork.

In addition to the classroom training, observers went on four to five training rides with police officers. Observers accompanied police officers during a shift, unobtrusively recorded their observations in field notes, and later transcribed descriptive narratives and coded quantitative items associated with police work (Reiss 1968; Mastrofski and Parks 1990). Observers were instructed to avoid influencing the events they were witnessing, to limit their conversations with officers to neutral topics, and to avoid challenging the authority

of officers (Mastrofski and Parks 1990). These instructions were intended to make both citizens and police officers comfortable with the presence of the observer. With few modifications, the instruments used during training were identical to those used during data collection in Indianapolis and St. Petersburg. The training rides allowed observers to become familiar with the instruments and to get a feel for the demands of fieldwork. Each observer also took an additional training ride immediately before data collection at the two sites.

Third, on-site supervisors conducted reliability checks on observational data during fieldwork to ensure quality control (Mastrofski et al. 1998). When possible, on-site supervisors compared observers' accounts of the sequence and timing of events with departmental records. When multiple observers witnessed the same event, on-site supervisors compared them in search of inconsistencies. Computerized quality control programs checked the coded data for internal logic and suspicious or unusual coding patterns. For example, a person who is interrogated by the police should be coded as a suspect at some point during the encounter (Mastrofski et al. 1998). On-site supervisors used the observer's narrative account to double-check the coded items and discussed questionable items with the observer. On-site supervisors also fielded observer's questions about coding items and made recommendations about clarifications or modifications of coding rules.

Fourth, SSO of police collects qualitative and quantitative data across several units of analysis. Observers who accompanied police officers during a shift wrote up qualitative descriptions of the events they witnessed during the shift which are analogous to the information gathered by anthropologist and ethnographers. In addition, a section of the descriptive narratives included a description of the level of reactivity to assess its overall impact for each shift. Thus, instead of retrospective accounts, measures of observer bias

were built into the instruments before the start of fieldwork.

Instead of anecdotal evidence, POPN instruments included a variety of coded items have the potential to go beyond describing observer bias and assess its quantitative impact on specific aspects of police behavior. The most detailed information was collected on police citizen encounters (i.e., situational factors). In addition to documenting the characteristics and behavior of the participants, observers recorded the start and end time of encounters. One of the coded items for each police-citizen encounter asked observers if they felt that their presence influenced the behavior of citizens or the police officer under observation.

Separate POPN employees interviewed almost all of the police officers at the two sites instead of relying on informant accounts. Officer interviews and situational factors form an important set of control variables in a quantitative analysis of observer bias. Since observer bias is only one explanation for variation in police behavior during fieldwork, the inclusion of encounter level covariates and quantitative data from the officer interviews as control variables in multivariate equations outlined in later sections would strengthen any analysis of observer bias.

Finally, the large number of observers allows for the measurement of covariation between observer attitudes and demographic characteristics and different aspects of police behavior (Reiss 1971). Observers were surveyed at three different times (during training, immediately before fieldwork, and immediately following fieldwork) to track changes in observer attitudes toward police and police work over the course of fieldwork.

CHAPTER TWO: Four Types of Observer Bias

Although SSO attempts to alleviate the skepticism of critics of field studies through training and quality control checks, it has not eliminated the potential for observer bias. Given the large investment of federal funds in the SSO of the police at sites across the country and importance of field research as a method of studying discretionary decision making by criminal justice actors, it is essential to determine how and to what extent observer bias is undermining the validity of police observational data. This section will synthesize fragmented accounts of observer bias from the field research, interviewer bias, and experimenter effects literature in order to define and describe in detail four types of observer bias.

Reactivity

There is a high probability that research subjects in any observational study may react to the presence of an observer, especially if the individual under study knows that his/her behavior is under observation. Webb et al. (1966) described this phenomenon as "the guinea pig effect." More generally, these effects have been called reactivity. Reactivity occurs in observational studies of police because observers could act as an audience for police officers. Police officers could "react" to the presence of an observer by engaging in atypical behavior, especially during the early stages of fieldwork, when research subjects are suspicious of observers.

Anecdotal evidence from field researchers in a variety of contexts suggests that research subjects gradually become accustomed to the presence of observers, and begin to act naturally and spontaneously (Reiss 1971; Skolnick 1966; Van Maanen 1982, 1983b, 1988; Martin 1980; Dean et al. 1969; Schwartz and Schwartz 1955; Yancey and Rainwater 1970; Webb et al. 1966; Gottfredson 1996). During the early stages of fieldwork, the presence of an observer could change the behavior of police officers if police officers are suspicious of outsiders (Dean et al. 1969; Westley 1970; Skolnick 1966; Glazer 1972). One manifestation of this suspicion is the questioning of observers about their identity and purpose when observers and the observed first meet (Strauss et al. 1969; Van Maanen 1982). A second manifestation of suspicion is the false fronts, evasions, and overt lies that research subjects tell observers when suspicious of their intentions (see Douglas 1976; McCall 1969; Argyris 1952; Van Maanen 1983a). Skolnick (1966) posited that a police researcher who only rode with police officers for a day or two would get a superficial "whitewash tour." The implication is that police officers will give socially acceptable answers when questioned and shelter observers from the more brutal aspects of police work during the early stages of fieldwork.

"Quixotic reliability"[4] is the tendency to get highly reliable but trivial and misleading answers from research subjects early in fieldwork (Kirk and Miller 1986). In field research, there is a tendency for research subjects to give party line, prepackaged answers to questions during early stages of fieldwork (Westley 1970; Kirk and Miller 1986; Spradley 1977). More specifically, Rassmussen wanted to know if masseuses at a local massage parlor were engaging in prostitution so he started hanging out in a massage parlor near his home (Kirk and Miller 1986; Douglas 1976). Rassmussen got very

friendly with the employees and casually questioned them if they had sex with customers. Although the women conceded that some masseuses at other parlors were out-and-out prostitutes, they gave a variety of reasons why they sold fantasy instead of reality. Douglas, who supervised the research, encouraged Rassmussen to be more skeptical. As a result, Rassmussen questioned other people in the neighborhood who frequented the massage parlor (e.g., his barber) and his independent sources corroborated what the masseuses were telling him: there were no 'extras,' just massages. Douglas encouraged Rassmussen to continue to hang around the massage parlor. Finally, an employee who assumed that Rassmussen knew the truth made reference to some sexual encounters that she had had while on the job. Rassmussen confronted other employees (and close friends) and they admitted that they had not been completely honest with him. Argyris (1952) referred to this defense mechanism as 'protective forgetting.' Everyone agreed that sex was not for hire in the local massage parlor and nothing in his early data suggested that he was being deceived.

Hoffman's (1980) study of locally influential elite (members of boards of hospital directors in Quebec) illustrated the tendency of research subjects to give socially acceptable answers to strangers. 'Surface collaboration' is when the observed are polite and diplomatic, but reluctant to discuss sensitive topics with a stranger (Argyris 1952). Board members uniformly presented a false front about the inner workings of board work until one informant discovered that he knew members of the researcher's family. This interview gave a very different picture of the nature of board work, power struggles between members, and how day-to-day business was conducted. Hoffman changed her research design because of this interview and focused on direct personal contacts and then

asked those acquaintances to refer her to others. Hoffman graphically juxtaposed typical responses to her questions when she was a stranger as opposed to known at some level by respondents to demonstrate the importance of acquaintanceship on the quality of observational data.

Rassmussen penetrated the carefully organized deceptive front because he stayed in the field long enough to discover inconsistencies and confront patrons and employees with details. Over time, research subjects gradually became accustomed to his presence and began to act naturally and spontaneously (see also Dean et al. 1969; Schwartz and Schwartz 1955; Yancey and Rainwater 1970; Webb et al. 1966; Schatzman and Strauss 1973). Van Maanen (1988) argued that his participation in the exciting and mundane aspects of police work, his visibility as an observer, and simply his presence eroded any reactive effects on the behavior of Union City police officers over time. Similarly, Skolnick (1966) simply and succinctly postulated that the more time he spent with police officers, the more police officers become used to his presence.

In a review of early observational studies of police, Manning (1976) noted that, with the exception of Skolnick (1966), researchers did not mention the effect of their presence on police behavior. Skolnick (1966) argued that his presence did not affect the behavior of patrol officers since, in most cases, patrol officers' decisions were determined by the nature of the work: the presence of an observer was, by comparison, a minor consideration. For instance, when an officer kicked in a door during a narcotics raid, police behavior was being influenced by the nature of the work, not the presence of an observer. Skolnick speculated that his presence motivated police officers to shield him from the "worst" of police behavior (e.g., brutality) (see also Martin 1980; Reiss 1971;

Johnson 1975). It is equally likely that officers were protecting themselves from the prying eyes of observers.

In contrast, field researchers involved in the ABF survey witnessed blatant disregard or ignorance of the law in the form of racially motivated beatings, unrestricted frisking of black citizens, and a complete ignorance of the exclusionary rule (Walker 1992). Witnesses were interrogated and led to believe that a kitchen colander was a lie detector machine. One observer spent his first shift with Milwaukee detectives drinking in bars (Walker 1992). Similarly, Van Maanen (1981) witnessed brutal treatment of suspects by police that contradict Skolnick's presumption (e.g., people thrown through windows, kicked to the ground, and attacked by police dogs, or terrified suspects who had a gun placed to their heads).

Van Maanen (1982, 1983b) also explicitly discussed the impact of observation on the behavior of police officers. After two years, Van Maanen (1982) returned to "Union City" to conduct additional fieldwork. His former classmates worked hard (compared to routine practice observed two years previous) at certain aspects of their job. Several officers mentioned that they wanted to demonstrate what "real" patrol work was all about (Van Maanen 1983b). During his first few weeks, he watched his acquaintances on the force seek out and push around informants to demonstrate to him that they had an intelligence network. Van Maanen also witnessed a ten or eleven year old boy who was verbally assaulted and thrown to the pavement because he gave a patrol officer the finger. Van Maanen knew from his previous experiences in "Union City" that these gestures of defiance were routinely ignored. Finally, Van Maanen witnessed a brutal beating of Chester Blazier, which was triggered by Blazier "mouthing off" and defying two patrol

officers who told him to go home after causing a disturbance at a bar. A number of factors could have triggered the beating, but Van Maanen felt that the beating was a direct result of his presence (Van Maanen 1983b).

These events and similar encounters caused Van Maanen to realize that patrol officers were showing off for his benefit to demonstrate skills that they had developed since he had been gone (Van Maanen 1982). Mastrofski and Parks (1990) reviewed data (e.g., post-observation survey of officers and observer reports of reactivity) on reactivity from an observational study of police conducted between 1987 and 1989. Mastrofski and Parks concluded that patrol officers were more active than normal because officers wanted to show observers the more interesting aspects of police work. Observers tended to trigger more proactivity in about one-fourth of the officers who were under observation. Suppression effects were negligible.

Culture shock

Culture shock refers to feelings of disorientation and anxiety that observers feel during the early stages of field research. Immersion into an alien environment can be an intense and unsettling experience (Hammersley and Atkinson 1983). Unobtrusive working relationships with research subjects must be developed quickly even though the field researcher is getting bombarded with an overwhelming amount of information when first entering the field (Bodgan 1972; Hammersley and Atkinson 1983). Field researchers have remarked that they feel like helpless children since they often lose their bearings and cannot effectively communicate because of the use of technical jargon by research subjects (Bodgan 1972; Werner and Schoepfle 1987; Briggs 1970; Golde 1970a, 1970b; see Hunt 1989 and Wintrob 1969 for a review). As a result, researchers feel anxious

about being rejected by research subjects and incapable of collecting any observational data, let alone carrying fieldwork through to completion (Wintrob 1969).

More specifically, Wax (1960) experienced understandable suspicion and hostility while studying Japanese Americans assigned to a relocation center after the Second World War. Wax felt discouraged and obsessed by a sense of failure since she had obtained very little data after the first month of fieldwork. Wax (1960) reacted to intense feelings of inadequacy and anxiety by either crying, writing letters to friends and relatives, or overeating so much that she gained thirty pounds in three months. Johnson (1975) experienced physical symptoms from stress during fieldwork. He had back pain for three hours in the morning because all workers remained in the office until around twelve and there was only one free chair and no extra desks until then. The first three hours of the day were agony because he did not want to hassle any one worker too much while he tried to stay out of everybody's way.

Even the best of fieldworkers feel depressed, inhibited about conducting certain activities, and paranoid about being cheated, plotted against, or laughed at by research subjects (Fischer 1970; Geertz 1967). Howell (1990) examined the extent of mental distress of anthropologists in her sample while in the field and found that 14% of the sample experienced depressive episodes and 16% reported instances of anxiety.

Surprisingly, anthropologists and ethnographers do not discuss the impact of "culture shock" on observational data. In short, culture shock implies that observational data collected in the early stages of field research are less accurate than data collected at later stages of field research (Bèteille and Madan 1975). The field researcher is bombarded and overwhelmed by potentially important observational data from the very

first moment that fieldwork begins, but does not have the luxury of waiting to get his/her bearings. Data collection begins immediately. Not surprisingly, observers make mistakes during these early stages of fieldwork. "Every fieldworker knows that some of the 'best' data collected in the first week or the first month turns out to be completely wrong" (Béteille and Madan 1975). At the very least, early observational data is highly likely to be contaminated to some extent (McCall and Simmons 1969b). Field researchers cannot simply discard this information because it also contains unique and irreplaceable information about reactivity. As a result, observational studies always contain an unknown amount of contaminated data.

Going native

Researchers may undergo a process of conversion or resocialization during fieldwork (Clarke 1975; Wax 1971). Sudman and Bradburn (1974) found evidence of socialization occurring even during an *interview*. Gans (1983) argued that observers become sympathetic toward individuals under study for a number of reasons. First, observers and research subjects work together in close quarters over the course of fieldwork. The observer's task is to develop a deeper understanding about the decisionmaking processes and behavior of research subjects in their natural environment. A natural consequence of the observer's task is a more sympathetic outlook toward individuals under observation. For example, Gans studied a group that was misunderstood by the rest of society: slum-dwellers. During the course of his study, Gans discovered that slum dwellers and the undeserving poor were falsely stereotyped. Gans' newfound insight into the plight of the poor motivated him to attempt to correct this false impression by becoming an advocate for the poor.

Second, field workers feel guilty about the deception implicit in the collection of observational data. The field worker cannot be fully honest with research subjects about the scope of behavior under observation for fear of changing the behavior of research subjects (Emerson 1983c). In order to compensate for this guilt, researchers tend to empathize with the problems of research subjects. Third, since observers are not (and cannot be) a part of the group under study, observers adopt at least some of their values and beliefs to get a feeling of belonging (Buckner 1967; Reiss 1968). Due to legal limitations which limit an observer's ability to participate and assist in police work, observers in most police observational studies observe police officers from the position of a 'fan' (see Van Maanen 1978a), while police officers play the role of 'rock star.' On the one hand, observers take on a nonconfrontational, naïve, and nonthreatening role while studying police officers. On the other hand, the role of the 'fan' reinforces the observer's marginal status while conducting field research.

> ...marginality usually tends to be experienced as a chronic sense of loneliness, anxiety, and perhaps even alienation. There can be a continual and often subtle sense of separation between the observer and the observed...It is as if one were being told: 'You are here and you know a lot about us, but you are not really one of us.' For a creature as sociable and as desirous of acceptance as homo sapiens, this can be hard indeed (Lofland and Lofland 1984:37).

A fourth reason (not covered by Gans 1982) is that researchers feel a pull toward increased involvement while collecting observational data (Schwartz and Schwartz 1955; see Adler and Adler 1987 for an overview). Pollner and Emerson (1983) argued that research subjects could use observers as an assistant and a resource while conducting their work. This level of involvement can range from innocuous requests for observers to act as a "go-fer" to participation in more critical activities. For example, while studying

drug dealers, Adler (1985) loaned drug dealers money, watched their children for extended periods of time, testified in court on their behalf and allowed them to conduct drug deals in Adler's home. Norris (1993), while observing police officers, made tea for the shift, but also helped to chase and arrest suspects and administered first aid following suicide attempts. Since he did not look like a policeman, Skolnick (1966) aided police by walking into a bar to find a dangerous armed robber. Skolnick also helped some policemen get past a lookout by driving a disguised truck up to a building. Adler (1985) and Skolnick (1966) justified their actions by arguing that refusing the requests for aid by drug dealers and police officers could seriously jeopardize rapport.

As noted above, observing research subjects in their natural settings has the potential to resocialize the researcher. This process of resocialization could have positive or negative consequences on the quality of observational data (Schwartz and Schwartz 1955). On the one hand, the observer's "sympathetic identification" with the observed could increase the validity of the observational data by giving the observer access to observational data and insights that would be denied to an outsider. Since police have things that they want to hide from outsiders, they present false fronts to strangers (Adler and Adler 1987). More generally, existentialists believe that people manage the impressions they give off to others (see Berreman 1962). Researchers must penetrate these false fronts to develop a valid picture of police officers at work. On the other hand, field researchers could undermine the validity of observational data by uncritically accepting the research subject's point of view as his/her own (Miller 1952; Gold 1958; Hyman et al. 1954). Since observers must work closely with police officers, observers may lose the objectivity necessary to collect observational data by becoming socialized by

police officers.

More generally, this has been conceptualized as the problem of "going native" since, over time, observers lose sight of their role as a researcher and, in extreme cases, begin to think of themselves as members of the group under study. Going native can have a variety of negative consequences on the quality of observational data. First, developing a personal relationship (or friendship) with research subjects could eliminate certain lines of inquiry (Yancey and Rainwater 1970). Mitchell (1993) described this phenomenon as "the paradox of intimacy." Trusted insiders are implicitly expected to avoid questioning research subjects about sensitive topics. An observer's close relationship with individuals under study may limit data collection. Observers may attempt to honor the privacy of research subjects by redirecting the research away from significant (but threatening) phenomena.

A strong friendship may also blur the line between what an observer is told "on the record" and what is told "off the record." For example, some observers in Yancey and Rainwater's (1970) study of the urban underclass developed close relationships with the residents and refused to transcribe information that was told to them. "As one student said, 'I wasn't working then and what she told me was personal. It was just conversation between two people'" (p 259). Miller (1952) also developed a close relationship with union leadership during his study of local union leadership. Miller was told significant and delicate information about the operations of the local union on the basis of the "friend to friend" relationship he had developed with union leaders. Miller felt uncomfortable probing union leaders about inconsistencies in their attitudes or investigating sensitive topics which were disclosed to Miller "the friend" as opposed to Miller "the observer."

Since Miller had developed a close relationship with union leaders, it was impossible to shift to a lower level of rapport without generating mistrust and suspicion. Miller also suspected that union leaders befriended him to limit his investigation and his criticisms of the union, a situation that may have occurred in other studies of labor-management relations. In contrast to Miller (1952), Westley (1970) was not able to avoid uncomfortable confrontations while observing police.

> There was a terrible tension in the flow of semiparticipant research, for to understand, he had to sympathize; but in attempting to sympathize he wanted to be liked. To be liked, he had to play by their rules and not ask too many questions. Thus, the work went in waves of carefully building up confidence and inevitably becoming involved in their regard, then asking...sharp probing questions, that soon caused rejection. This proved to be both personally painful, in the sense that thereafter he had to push himself on men who he felt disliked and were afraid of him, and practically disastrous, since if the men refused to talk to him, the research would stop (Westley 1970:vii).

Second, observers may unquestioningly accept the statements or perspectives of individuals under study (Adler and Adler 1987). Miller (1952) discussed union problems with union leaders and rank and file members. Miller felt that he was too attuned to the sentiments of leadership due to his close relationship with many union leaders. Miller warned field researchers not to selectively focus on information which supports union leadership (and downplaying the significance of contradictory reports) when talking to the rank and file union members. The danger is that the researcher may unwittingly project his/her understanding of events onto members of the group under study on the basis of the strength of personal relationships rather than the strength of the evidence (Werner and Schoepfle 1987).

Third, observers may become involved as participants and systematically

influence the phenomenon under study (Schwartz and Schwartz 1955; Adler and Adler 1987; see Manning 1976 for examples from police observational research). Chicago School sociologists warned fieldworkers that they may be affected and changed by involvement with research subjects since researchers are fundamental in the collection of observational data (Adler and Adler 1987). More specifically, Buckner (1967:471-2) felt concerned because he began to see the world as a "cop."

> I began to perceive the world from a police point of view, seeing vehicle code violations while driving, watching for accidents and setting out flares when in my private car, knowing certain sections of the city only for their geography of crime and violence, immediately going to a call box when I heard a burglar alarm or saw a traffic hazard while in civilian clothes, noticing suspicious people who seemed out of place, noticing prostitutes and pimps, and thinking of the solution of many problems in police terms.

Similarly, Reiss (1968) described another (more extreme) instance of observer socialization. In a precinct located in a high crime area populated predominantly by African Americans, a common practice in the stationhouse was to walk down the row of cells and flush the toilets when an inmate asked for water. One evening an inmate asked for water and an observer imitated the officers by walking down the cellblock and flushing the toilets. On his last shift, one officer asked the observer what he learned over the summer. The observer shocked a fellow observer by replying "I learned to hate niggers." In extreme cases, observers could transfer their identity and loyalty to research subjects, completely abandon data collection, and refuse to return from the field. Anthropologists who have "gone native" have stopped publishing material completely, rejected academia, and decided to live with indigenous people who were the topic of inquiry (Vidich 1969; Gronewold 1972).

In short, existential sociologists (e.g., Johnson 1975; Douglas 1976; see Bodgan

1972 and Hunt 1989 for a review) argue that all data is influenced by the subjective character of the individuals who collect and interpret it (see Adler and Adler 1987 for an overview). Even the most 'objective' methods (i.e., experimental designs in the physical sciences and survey research) are influenced by the researcher's interpretation of events (Rosenthal 1976; Hyman et al. 1954). There are observer differences when interpreting laboratory test results or assessing malnutrition in children by doctors or in categorizing short segments of observed behavior (Hyman et al. 1954). This is a fundamental problem, which transcends field research and applies to all branches of science since the basis of the scientific method is trained attention by observers.

Going native is concerned with inaccurate documentation of observational data due to changes in the observer's belief system. All observational data is mediated through the belief systems of observers (see Clarke 1975; Emerson 1983b). Fieldwork often causes observers to question their personal values and beliefs. Attitudes could be drastically altered as a result (Emerson 1983b; Clarke 1975; Johnson 1975). Reiss (1971) reported that, during the early stages of field research, officers made attempts to convert observers to their point of view, but reports of these attempts declined markedly over time. The expectations and values of the fieldworkers are important sources of bias in observational data since the researcher's attitudes can change over the course of fieldwork as a result of socialization. Shifts in expectation and attitudes toward research subjects could affect what events observers focus on and their interpretation of events during fieldwork (Kleinman 1991; Webb et al. 1966).

Reiss (1968) found a pattern of adjustment in observers over the course of fieldwork: all of the observers became more pro-police. An observer's expectancy can

bias the assessment of subjective aspects of police work (see Rosenthal 1976 for examples from the experimenter bias literature). Observers who have been socialized by police officers may develop an expectancy about the motives behind police behavior and, as a result, will be less likely to categorize police behavior negatively. A NORC experiment found that interviewers tended to classify ambiguous responses consistent with their own ideology on instruments with a high proportion of answers that were difficult to classify (Hyman et al. 1954). Public opinion research has found that an interviewer's ideology is a decisive biasing factor in interviews (see Hyman et al. 1954 for a review).[5] For example, interviewers tended to record more statements that supported their attitudes toward two controversial issues (p 196). Middle class interviewers found higher rates of conservative attitudes among lower class respondents than working class interviewers (p 167). However, the most stringent experimental studies did not reveal an 'ideological bias' systematically distorting respondents' attitudes to conform with the interviewers' opinions. Large scale field experiments found negligible differences in results from different observers on a variety of questions (p 80-1). However, null findings do not eliminate this line of inquiry since interviewer ideology may be less important than less abstract beliefs about research subjects which have not been given as much attention in this literature (p 35-6).

McCall (1975) speculates that observers who participate in police work may be more susceptible to the biasing effect of going native. Participant observation research implies a certain amount of participation since observers attempt to understand the motives and behavior of research subjects in their natural surroundings. The researcher must make a conscious decision about his/her level of participation in the day-to-day life

of research subjects. At one extreme, the observer could attempt to simulate full membership by assuming the responsibilities, privileges, and duties that go along with full membership. For example, Van Maanen attended the police academy and rode with officers in Union City as an armed observer. He felt an ethical obligation to help them when needed. On occasion, police officers engaged in activities that they would have avoided without backup because of the implicit support of Van Maanen's presence (Van Maanen 1983). At the other extreme, observers can take on a passive role by standing aside and unobtrusively watching and documenting the behavior of research subjects (see Webb et al. 1966).

The role of observers in a majority of police observational studies has been that of a fan (see Van Maanen 1978a for an overview). These researchers identified themselves as such, were not full or part time police officers, and kept their participation in police work to a minimum. While it is possible to describe a dominant observer role from the four ideal types identified by Van Maanen (1978a), most police observers are forced to shift from one role to another over the course of fieldwork. According to Van Maanen (1978a:346), the longer an observer remains in the field, the greater the amount of involvement in police work and the more blurred the lines become between the different observer roles. He felt his role, over time, reflected part member, part fan, part spy, and part voyeur.

In sum, the more time an observer spends in the field with research subjects, the greater the risk of inaccurate documentation of observational data caused by going native (Vidich 1969). The blurring of the line between observer as participant and observer as researcher is one manifestation of going native. Observers could also ignore or distort

undesirable or unethical behavior, leading to invalid data collection (Gans 1982) since "our assumptions define and limit what we see...even if this involves distortion or omission" (Johnson 1953:79).

Burnout[6]

Burnout refers to inaccurate documentation of observational data at later stages of fieldwork due to the mentally and physically demanding nature of data collection (Junker 1960; Briggs 1970; Glazer 1972; Whyte 1955; Bodgan 1972). Punch (1986) compares fieldwork with the strain of constantly being on stage. Researchers get tired of "laughing and smiling and trotting out your potted biography and never letting your guard drop" (Punch 1989:187; see also Wax 1971; Hyman et al. 1954). Wax (1971) argued that fieldworkers must be mentally tough because s/he must endure being ridiculed, laughed at, and otherwise treated like a fool for months on end. Researchers must learn to suppress expressing feelings that might damage relationships with research subjects since acting as one normally acts might be interpreted as rudeness or hostility by the hosts (Punch 1986). Punch (1986) argued that this task is more difficult when conducting fieldwork with individuals with whom one would not normally associate and cited Fielding's (1982) study of the right wing National Front in Britain as an example. Similarly, Briggs (1970) had to suppress her normal behavior and act politely toward her Eskimo hosts while keeping alert for cues that would alert her that she had succeeded or failed. Her most difficult task was to maintain the appearance of cheerfulness that Eskimos displayed to one another regardless of her mood. Researchers studying police may face the same problem since previous research suggests that police have a conservative outlook while social scientists are typically liberal (see Phillips and Brown

1997; Van Maanen 1978a). Very few researchers (cf. Geertz 1967, Malinowski 1967) admit to loathing the people they are studying, but if your distaste or dislike is too strong, an observer may expend too much energy on hiding his/her true feelings instead of focusing on collecting accurate observational data (Lofland and Lofland 1984).

Hammersley and Atkinson (1983) cited Everhart (1977) to illustrate the dangers of complacency and lapses in concentration during the later stages of fieldwork. During his study of college students and teachers, Everhart (1977) lost his critical edge by the end of the second year of fieldwork as a result of a combination of fieldwork fatigue and becoming too familiar with the research setting. Early in his study, Everhart took detailed notes and recorded conversations with teachers about categorizing students. Toward the end of the study, he tuned out these types of conversations because he felt he would be rehashing a dead issue. In retrospect, discussions that he dismissed as redundant dealt with aspects of the issue that he had not considered. He was angry at himself for not recording these data, but he was tired and it felt more natural to sit with teachers and engage in small talk since "the inquisitiveness had been drained from me" (Everhart 1977:13). In short, Everhart reached a saturation point after being in the field for so long. He felt knowledgeable enough to ignore important data even though, in retrospect, he was not. Similarly, Punch (1989) felt disillusioned during the later stages of fieldwork on Amsterdam police because he felt he was not learning new things and events had become predictable.

The mentally draining aspects of fieldwork deal with the strain of "playing the fool, " being polite at all costs, and maintaining focus and fighting off lapses in concentration during fieldwork. The collection of observational data also requires a high

level of physical stamina (see Du Bois 1970; Glazer 1972). Collecting observational data is a labor intensive process. Johnson and Johnson (1990) argued that the exploratory nature of most qualitative field research means that researchers collect data with a "vacuum-cleaner-like" comprehensiveness. In order to convert detailed field notes into usable data, researchers may have to spend several hours reworking field notes for every hour spent collecting them.[7] More generally, Hammersley and Atkinson (1983) warned that field researchers should set aside plenty of time to write up field notes and then at least double it since it takes longer than you think.

In other words, for all the indignities and complexities of dealing with research subjects, the time and effort involved in direct observation is only the tip of the iceberg. Time spent in the field is the least time consuming part of fieldwork. It takes much more concentration and discipline to write up field notes than to take them down since field notes are written in a compressed style of abbreviations and other forms of personalized shorthand (Bodgan 1972; Van Maanen 1988). Thus, the collection of observational data requires physical stamina since fieldwork should be followed immediately by the coding and transcription of field notes.

Since field notes are 'summarizations' of recalled exchanges, they reflect the structure of memory processes (Emerson 1981:358). Fatigue or exhaustion could undermine the accuracy of an observer's memory, reducing the accuracy of observational data over time (Georges and Jones 1980; Emerson 1981; Junker 1960). Two factors intensify the problem of observer fatigue while collecting observational data: workload and intensity of observation schedule. Since the observer is also the primary data collection instrument, individuals conducting fieldwork should be aware of the limits of

the observer's ability to document and recall conversations and behavior of research subjects (McCall and Simmons 1969; Hammersley and Atkinson 1983). Generally, the more detailed the description in field notes, the narrower the scope of the behavior and/or conversations documented (Hammersley and Atkinson 1983).

Observers need time to write up field notes immediately after returning from the field. Intense observation schedules could intensify the problem of workload and amplify the problem of burnout. If trips into the field are scheduled in a rapid fire fashion (i.e., every other day), the researchers may have difficulty finding time to write up field notes. Even with less demanding schedules, this can be a problem. If inadequate time is scheduled to analyze field notes, then the observer may either consciously or unconsciously exclude events or eliminate detail (Hammersley and Atkinson 1983). Observers could be motivated to cut corners or cheat if the task could not be completed in the allotted time or if the observer was too tired to complete the task (Hyman et al. 1954). Intense observation schedules and high levels of workload per excursion into the field could increase worker fatigue and exacerbate the physically and mentally taxing nature of field research. The end result: observational data collected at later stages of field work would be less complete and comprehensive than data collected at earlier stages.

CHAPTER THREE: Manifestations of Observer Bias in Police Observational Data

Although most field researchers speak of observer bias in a very general sense,[8] some field researchers highlight variables which are conceptually linked to observer bias. Although there are scattered allusions to the other three types of observer bias, the vast majority of the literature focuses on reactivity. Webb et al. (1966) described the limited state of our knowledge about reactivity. Most studies are limited to a posttest interview where interviewers ask subjects whether they were affected by the test. In contrast, PSS asked observers to assess whether their presence affected the behavior of police officers under observation (see Worden 1989). Nonetheless, overall, there has been no systematic data examining reactivity and all of its potential effects (Reiss 1968). The purpose of the next section is to describe in more concrete terms the manifestations of reactivity in police observational data.

Reactivity

A typical discussion of reactivity is vague and glosses over the complexities of reactivity as a concept. The purpose of this section is to use the field research and interviewer bias literature to operationalize reactivity as a set of independent variables and dependent variables. The first section will highlight specific types of police behavior susceptible to reactivity. The second section will describe a theme within the literature which suggests that time in the field is a key independent variable. The third section will

focus on the impact of an observer's attitudes toward police on reactivity. The fourth section will concentrate on the level of demographic, attitudinal, and experiential dissimilarity between observers and police officers (a.k.a. status incongruency). The final section will consider the impact of the stability of an observer's beat assignment on reactivity.

Police behavior

Observers act as an audience for police officers who could react to their presence by engaging in atypical behavior. Based on previous research and my experience as an observer, I have identified four categories of police behavior in which reactivity is likely to occur during police observational studies: use of discretionary time (e.g., break time, running errands, leaving work early), police use of force, proactive police behavior, level of detail of debriefings.

Police officers must learn to trust observers (Van Maanen 1982). Any observer who has spent more than a trivial amount of time observing the police will quickly discover that virtually all policemen engage in activities which could get them in trouble, get them fired, or land them in jail (Van Maanen 1983). Homans (1950:53-4) argued that "the clearest sign that [those being studied] had lost all suspicion was their willingness to do or say things in front of him that implied breaking various...rules." Rule breaking can take a variety of forms. Some forms of rule breaking are very innocuous and others have serious repercussions for the police officer. An example of innocuous rule breaking is related to the use of discretionary time by police officers. I witnessed this form of rule breaking as a POPN observer in Indianapolis. According to department policy, break times were supposed to be staggered because of concerns about covering calls for service.

In spite of this rule, patrol officers routinely ignored the policy. Patrol officers also sometimes ran errands while on duty or left work early. If breaking rules in front of observers is less likely when police officers do not trust observers, then measurable changes in break time with or without peers (Van Maanen 1983b), running errands, or leaving work before the end of the shift over the course of field work implies reactivity.

If the building block of trust between police officers and observers involves being discreet about inappropriate police behavior, then there are small building blocks and large building blocks. The minor indiscretions involving use of discretionary time could be categorized as small building blocks. An example of a large building block: police use of force. Use of force is not a rule violation in all cases since there are times when use of force is justified. However, allegations or charges of use of excessive force could result in suspension or termination of employment. The interviewer bias literature provides an analogous illustration. Cass (1991) discussed how threatening subject matter could trigger interviewer bias. Individuals are hesitant to reveal information during interviews with a high threat potential. Since the threat potential in terms of the consequences of use of excessive force is very high, police officers should be reluctant to engage in these types of behaviors in front of observers they do not trust.

The third general category of police behavior is proactive police behavior. Police officers have a lot of free time on their hands. A recent police observational study estimated that a patrol officer on a typical shift has 71% of his/her time free from supervisor or dispatch assignments (Mastrofski et al. 1998a). Thus, patrol officers exercise wide discretion and have the ability to engage in activities on their own initiative (Worden 1989). Given a large amount of free time and an audience, police officers could

'show off' for observers during the early stages of field research by becoming extremely proactive and aggressive while on patrol. After a two year hiatus from Union City, Van Maanen (1983b) saw a 10 year old get verbally assaulted and thrown to the pavement for giving an officer the finger even though, on previous rides, this type of behavior was routinely ignored (see Van Maanen 1983b). Other examples of proactive police behavior include aggressive traffic enforcement, aggressive patrol (see Worden 1989), high levels of officer initiated encounters with citizens (e.g., DUI enforcement, ordinance violation, investigation of suspicious persons, backing up other officers on non-dispatched calls for service), arrest, and use of force (Mastrofski and Parks 1990; Worden 1989).

Finally, POPN required observers to debrief police officers following police-citizen encounters. Observers collected unstructured descriptive explanations about the motivations and thought processes of police officers following police-citizen encounters in order to map out the stereotypes and "quasi-theories" that police officers utilize to make quick decisions given ambiguity (Mastrofski and Parks 1990). Little is known about the cognitive processes of patrol officers and how these processes shape their behavior since intuition and experience rather than departmental policy structures their behavior (Worden 1989). Observers were instructed to gently probe officers about their thought processes immediately following encounters within the context of a general conversation while being careful not to be judgmental no matter how flawed the logic behind the police behavior (Mastrofski et al. 1998b). The length of debriefings will be included in this analysis since variation in the length of debriefings will be used as a proxy for the quality of the relationship between observers and police officers. If police officers are comfortable with observers, they will be more likely to give more detailed

explanations about their decision-making processes during encounters with citizens since debriefings occur within the context of a friendly conversation. If police officers do not trust observers, then they will be less likely to give detailed debriefings since police officers since casual conversation between police officers and observers will be less likely.

Time in the field

Reactivity is implicitly recognized as a problem during the early stages of observational studies. However, field researchers do not explicitly discuss the effects of reactivity over time since time in the field is a highly fragmented theme within the literature. Reactivity could have one of three effects on police behavior over time. First, if police officers mistrust observers, then police officers will give packaged answers and limit observers' access in order to shield crucial aspects of their life from observation (Van Maanen 1983b; Skolnick 1966). Over time, observers must earn the trust of police officers before they are permitted to witness more questionable police behavior (e.g., Van Maanen 1978). For example, Westley (1970) was forced to conduct a continuous campaign of personal propaganda to counter the suspicion and lack of cooperation from police officers. When line staff and sergeants were completely uncooperative, Westley would hang out at the station house for long periods of time. His strategy was that, sooner or later, the officers would lapse back into their normal routines and he would get an opportunity to witness typical police practice. While observing the detective bureau, he was determined to wait them out and literally sat in the detective bureau for ten days until something happened. Finally, a sergeant slapped a suspect in the head so hard that the suspect was knocked off of his feet. The sergeant immediately glanced at Westley

and helped the man to his feet. After the incident, all of the detectives began to openly discuss their cases and tactics with Westley and invited him to raids.

In short, if police officers do not trust observers, then police officers will react to the presence of an observer by sheltering them from certain aspects of police behavior. Based on the previous discussion, time in the field will have the following effects on use of discretionary time, use of force, and proactive police behavior. If police officers feel inhibited in front of observers during early stages of fieldwork, then they will be less likely to allow observers to witness activities that could get them in trouble. Thus, patrol officers' use their discretionary time will vary over time. At first, officers will be less likely to overextend their break time, run errands, or leave work early. In time, officers will become comfortable with the presence of an observer. They will begin to act normally by taking longer breaks, running more errands during the shift, and leaving work early. Similarly, police officers will initially be less likely to use force against suspects or engage in proactive police behavior. Eventually, police officers will become more willing to engage in these behaviors as observers demonstrate that they are trustworthy. Similarly, as police officers become more comfortable with observers, they will speak more freely and give more detailed debriefings following encounters.

Second, patrol officers could react to the presence of an observer by showing off for his/her benefit to demonstrate their skills (Van Maanen 1982). Given a large amount of free time from calls for service and the long stretches of inactivity typical of patrol work, police officers could also become more proactive and aggressive while on patrol at the early stages of fieldwork in order to create excitement for observers and alleviate the boredom of routine patrol. For example, several officers told Van Maanen (1983b)

explicitly that they wanted to show him "real" patrol work. Over the next few weeks, these officers contacted and pushed around informants to show Van Maanen their intelligence network. Van Maanen (1983b) also witnessed a brutal beating and the use of physical force on an eleven year old boy which he felt was both excessive and the direct result of his presence. Nevertheless, over time, police officers gradually become accustomed to the presence of an observer and begin to act naturally and spontaneously (Reiss 1971; Skolnick 1966; Van Maanen 1982, 1983b, 1988). More specifically, Van Maanen (1983b, 1982) felt that proactive police behavior and use of force waned over time. By the third shift together, patrol officers settled down into the normal routine of long breaks, long conversations about nonpolice matters, and a work routine that was triggered by dispatched calls for service (see also Webb et al. 1966; Schatzman and Strauss 1973).

The previous discussion of time in the field describes reactivity as a "one shot" linear process. On the one hand, the longer an observer stays in the field, the less suspicion and reactivity (Hunt 1984). On the other hand, police officers could become more proactive to alleviate boredom and create excitement for observers, but this effect will decrease over time as patrol officers settle back into their normal routines. However, the dangerous nature of police work could trigger reactivity at irregular intervals regardless of time in the field (Vidich 1969; Hunt 1984; Georges and Jones 1980). Subtle and overt suspicion from research subjects (i.e., making direct queries about the presence of observers) could reappear even after being in the field for a time, especially after observers witnessed 'unusually delicate or explosive situations' (Strauss et al. 1969). Although danger and violent behavior from citizens are relatively rare, danger and

violence are unpredictable aspects of police work (Manning 1976). Police officers may reevaluate whether they want to have an observer present during the 'unusually delicate or explosive situations' which occur during later stages of fieldwork.

In other words, most accounts oversimplify or exaggerate the unconditional nature of trust in fieldwork (Emerson 1983b). There is no magical moment when trust causes all prior suspicion and mistrust to melt away (Johnson 1975). Reactivity may become an issue not only during early stages of field research, but also at irregular intervals, especially following dangerous or violent encounters with citizens (Webb et al. 1966). The nature of police work requires police officers to be conscious of their personal safety (Manning 1976). The presence of an observer increases this burden on police officers, especially during potentially dangerous encounters. Ironically, police officers could become *overprotective* of observers by limiting the observer's access to police-citizen encounters and becoming less proactive following potentially dangerous encounters.

Demographic characteristics of observers

Field researchers must make police officers feel at ease with the presence of an observer (Bogdan 1983). Individuals being studied want to feel that the researcher is a "good guy" who can be trusted with whatever is uncovered during field research (Dean et al. 1969; Cicourel 1967). More generally, "the literature on stereotyping presents overwhelming evidence of a tendency among human beings to make guesses about the group membership of individuals and behave in conformity with such stereotyped judgements" (Hyman et al. 1954). In other words, reactivity may vary based on how observers are categorized (i.e., insider, friend, neutral, or spy) by the individuals under study. Police officers could use the demographic characteristics of observers to

categorize observers and develop expectations about observer attitudes toward police work and behavior (see Cass 1991 for an analogous discussion relating to interviewer bias). Both field researchers (e.g., Van Maanen 1988; Lee 1995; Hammersley and Atkinson 1983; Yancey and Rainwater 1970) and researchers who focused on the problem of interviewer bias (for a review see Cass 1991; Webb et al. 1966; Hyman et al. 1954; Sudman and Bradburn 1974; Emerson 1983b) have identified observer's sex, age, race, and social status as factors which could trigger atypical behavior during fieldwork,[9] but more researchers have focused on the effects of observer sex in field research in terms of stereotyping and have (loosely) specified a process for how observer sex impacts the quality of observational data.

Hunt (1984), in a review of the gender issues in fieldwork literature, argued that "older studies do not see gender as negotiable" because gender is a "deep category" that encourages a permanent categorization of female researchers into stereotypical roles (e.g., sex object, slut, helpless/defenseless) for the duration of fieldwork. Women are depicted as passive victims of sex role stereotypes.[10] In contrast, more recent studies on gender issues (e.g., Hunt 1984; Warren 1988:8) view gender as a negotiated status. Even in male dominated organizations, female researchers have the ability to overcome sexual stereotypes and eventually establish the trust (and respect) needed to conduct fieldwork without disrupting the behavior of police officers. Hunt's conceptualization of gender as a negotiable status is a key point in this analysis of observer bias. If gender in male dominated settings is a nonnegotiable status, the observer's gender should change police behavior *no matter how long the researcher is in the field.* If gender is a negotiable status, then, over time, reactive effects should become weaker the longer the researcher

stays in the field (e.g. Gurney 1991; Martin 1980).[11]

The effects of observer sex on police behavior will differ depending on how observers are categorized since stereotypes often structure field relations with research subjects.[12] If the female researcher is seen as a sex object, police behavior can change in one of two ways. The officer may take longer breaks in an attempt to turn eight hours of data collection into a pseudo-date.[13] A police officer could also become more proactive and aggressive (e.g., use of force) during encounters in order to showcase his skills and impress female observers (see Van Maanen 1983b).

At other times, the officer may become protective of a young woman and attempt to shield her from the more dangerous aspects of police work (Hunt 1984; Golde 1970a; Fischer 1970; Warren 1988). Concerns about the safety of female observers may represent a latent form of social control which constrains the observer's actions (and access) by limiting her freedom of movement (Lee 1995). Female anthropologists have argued that this categorization is due to a cultural notion of the low status of women and an expectation of submissive behavior on the part of women (Dube 1975; Easterday et al. 1982). As a result, female observers may be sheltered from dangerous aspects of police work because police officers categorize them as helpless and in need of protection (Phillips and Brown 1997). Female observers could be more likely to be excluded from dangerous encounters and officers could be less likely to use force or engage in proactive police behavior with female observers.

Warren's (1988) experience conducting field research in male dominated organizations illustrates the advantages of the traditionally low status of women. Since women in organizations typically occupy low status jobs (i.e., file clerk or secretary),

research subjects become accustomed to ignoring their presence. 'The invisibility of the servant female' within these organizations allowed Warren to wander around a psychiatric hospital and a court without causing any suspicion from research subjects. Warren even investigated the contents of file drawers without attracting the attention of male workers who were busy with more important business. Similarly, Easterday et al. (1982) argued that if the female researcher is perceived as nonthreatening, research subjects are more likely to confide in them and let them see or hear things due to their categorization as harmless and nonthreatening (see also Golde 1970a; Warren 1988). In addition, Easterday et al. put a positive spin on sexual harassment, flirting, and unwanted sexual advances from research subjects in male dominated organizations (see Warren 1988; Caplan 1993; Golde 1970b; Gurney 1985): the informant may reveal more than they meant to in order to show how friendly and accommodating they are.[14] If police officers are more friendly and accommodating to female observers, then female observers will be able to obtain more detailed information from the officers during debriefings following encounters.

Observer's attitudes toward police

An observer who is overly accusatory when questioning a patrol officer could trigger reactivity. Officers could interpret an accusatory tone in questioning as disrespectful. Westley (1970) argued that people who talk back or think they know more than police are viewed as being disrespectful. Similarly, Van Maanen (1978b) discussed how officers interpreted challenges of their authority and definition of a situation as disrespectful. In other words, to minimize reactivity, "it is important that the investigator does not...come into...conflict with the observed, provoke excessive anxiety in them, or

demonstrate disrespectful attitudes toward them" (Schwartz and Schwartz 1955:347).

For example, Ferraro (1989) and a team of six other observers observed Phoenix police three weeks after a presumptive arrest policy for domestic violence was adopted. In *most* cases, observers did not attempt to influence police behavior even when they disagreed with their behavior. Ferraro did not suggest to police officers that they had violated the new policy until the officer had signaled that the encounter was over and was leaving the scene. Ferraro found widespread evidence that officers were not complying with the presumptive arrest policy: arrests were only made in 18% of cases. It is possible that observers in this project generated a backlash from officers by openly questioning their authority. Officers may have reacted to direct challenges to their decision making in domestic violence encounters by intentionally ignoring the presumptive arrest policy except under extreme circumstances. In this study, observers attempted to persuade or influence an officer's arrest decision because of the mandatory arrest policy.

In short, when observers attempt to influence police officers or challenge their judgement, it becomes unclear whether officers are acting normally or reacting in some unknown way to direct challenges to their authority.[15] An observer's negative attitudes toward police could set the tone for how observers behave toward police. This behavior, in turn, could affect reactivity by causing police officers to dislike as well as mistrust observers. As a result, officers may take shorter breaks, be less likely to run errands, be less likely to leave work early, use force, engage in proactive police behavior, and give more detailed debriefings.

Status incongruency

A valid evaluation of the data must necessarily include a reasonably

> thorough comprehension of the major social dimensions of the situation in which the data were collected. The social positions of the observer and the observed and the relationship between them at the time must be taken into account when the data are interpreted. To fail to take account of these conditions is to assume an equivalence of situations which does not exist and leads to distortion (Vidich 1969:86).

In the interviewer bias literature, "status incongruency" is a general term used to describe how differences in demographic characteristics, attitudes, and life experiences between observers and research subjects can result in inaccurate reporting in surveys (for a review, see Cass 1991; Hyman et al. 1954; Sudman and Bradburn 1974). Similarly, Vidich (1969:85) noted that "the greater the social distance between the observer and the observed, the less adequate the communication between them...the observer's data are determined by the subjects' ability and willingness to report it." Thus, status incongruency should have a direct effect on reactivity. The more dissimilar the observer and the observed are demographically, attitudinally, and experientially, the stronger the effects of reactivity since differences between the observer and observed can undermine the development of trust necessary to make research subjects feel comfortable and act naturally (see Cass 1991; Georges and Jones 1980; Manning 1972; Martin 1980).[16]

One side of this equation (characteristics and attitudes of observers) was discussed in the previous section. The other side of the equation is a function of the characteristics and attitudes of the patrol officers under observation. Cass' review of the interviewer bias literature focused on demographic characteristics of interviewers and respondents such as age, sex, race, and social class. However, 'congruency' or 'incongruency' between observers and police officers entails more than a simple comparison of demographic characteristics. An aspect of 'incongruency' which could have a more direct impact upon

the establishment of rapport during field research is dissimilar views between observers and patrol officers about the role of the police. Divergent attitudes about the role of the police could generate reactivity in a subtle fashion. An observer who witnessed questionable police behavior could (consciously or subconsciously) react with disgust (i.e., by making a face or cringing) (e.g., Van Maanen 1981), making officers feel self-conscious about their behavior, and thus triggering reactivity. Finally, observers with experience in law enforcement or career aspirations in law enforcement may have similar experiences and similar outlooks when compared to observers with no career aspirations in law enforcement. In short, the more dissimilar police officers and observers are demographically, attitudinally, and experientially, the less likely that observers will be able to obtain the trust necessary to collect uncontaminated police observational data. As a result, police officers will be less likely to run errands during the shift, take long breaks, leave work early, use force, or engage in proactive policing. Observers will also obtain less detailed debriefings following encounters.

Stability of observers' assignment

Whenever possible, observers were assigned to the same district to allow patrol officers to become familiar with observers and to allow observers to become familiar with the beats. An observer with a stable assignment had the daunting tasks of becoming acclimated to two or three beats over the course of twenty rides over twelve weeks. However, some observers served as "floaters" and bounced from district to district in order to fill out the observational schedule.

Stability of observers' assignment will have one of two effects on police behavior. On the one hand, the greater the stability of the observer's beat assignments, the more

likely that police officers became familiar with each observer as an individual and built up the trust necessary to allow officers to feel comfortable and act naturally in their presence. Thus, over time, police officers will take longer breaks, run more errands, be more likely to leave work early, be more likely to use force and engage in proactive policing, and give more detailed debriefings to observers with more stable beat assignments. On the other hand, patrol officers could react to the presence of an observer by becoming more proactive in order to keep observers entertained. Van Maanen (1983b, 1982) believed that it took patrol officers three shifts before his presence stopped triggering proactive police behavior and use of force. If police officers 'show off' for observers they are unfamiliar with and gradually revert back to their normal work routine of reacting to calls for service, then observers with less stable beat assignments will be more likely to trigger this effect. Thus, police officers will be more likely to use force, engage in proactive policing, and give more detailed debriefings when accompanied by observers with less stable beat assignments during the early stages of fieldwork.

CHAPTER FOUR: Proposed Hypotheses

Field researchers and their critics recognize reactivity as an important source of observer bias. However, most references to reactivity are highly fragmented and only *describe* situations where field researchers make research subjects feel uncomfortable and disrupt their natural behavior. More sophisticated discussions of reactivity by field research methodologists attempt to pull together the fragmented references to reactivity to develop strategies to avoid reactivity. Although personal accounts and methodological discussions of reactivity focus on behavior changes in research subjects triggered by the presence of an observer, I have found no studies which specify hypotheses about reactive effects or the *direction* of behavior changes in research subjects.

The impact of reactivity on police behavior

Briefly, a police officer will "react" to the presence of an observer in one of two ways. Either police officers will attempt to shelter observers from certain aspects of police behavior, or police officers will "show off" in front of observers and increase their activity level. Becker (1970) argued that field workers would have no effect on the behavior of individuals under study since the behavior of research subjects within organizational settings are constrained by much stronger forces (direct and indirect supervision, workload, etc.). Heyns and Lippitt (1954) proposed that, although the present state of knowledge on this issue is very inadequate (see also Reiss 1968; Weick

1968), there is a general belief among experienced fieldworkers working in a wide variety of settings that the presence of observers has very little effect on the behavior of those under observation.[17] Similarly, Skolnick (1966) observed that police officers were much more concerned about organizational controls than the presence of an observer. However, Skolnick (1966) also assumed that police officers sheltered observers from the "worst" of police behavior (e.g., harsh treatment of prisoners, deception of suspects during interrogation). The assumption is that, if police officers are guarded, nonargumentative, and on their "best behavior," then they are reacting to the presence of an observer (Weick 1968; Webb et al. 1966). However, situational imperatives during police-citizen encounters may focus attention away from the observer and limit the officer's ability to react to his/her presence (see Reiss 1971). Van Maanen (1983b) observed that Union City police officers were more proactive and aggressive during the early stages of fieldwork. However, by the third shift together, patrol officers had settled down into the normal routine of long breaks, long conversations about nonpolice matters, and a work routine that was triggered by dispatched calls for service (Van Maanen 1983b, 1982; see also Webb et al. 1966; Schatzman and Strauss 1973).

In sum, the literature is split on the effects of an observer's presence on the behavior of those under observation. Becker (1970) and others argued that an observer's presence would not affect the behavior of individuals under study. Skolnick (1966) presumed that his presence caused police to put their best foot forward and shelter him from the more brutal side of policing. Van Maanen (1982, 1983b) and Mastrofski and Parks (1990) found evidence that officers were 'showing off" and becoming more proactive and aggressive during the early stages of fieldwork. Thus, there is a clear split

in the literature about the impact of an observer's presence on the behavior of those under observation.

Given that the field research literature is split on the direction of the hypothesized effects of an observer's presence on police behavior, I have compiled the following list of (sometimes contradictory) hypotheses on the effect of an observer's presence on police behavior:

Time in the field

H_{1a}: The longer an observer remains in the field, the more time police officers will spend taking breaks.

H_{1b}: The longer an observer remains in the field, the more time police officers will spend running errands during the shift.

H_{1c}: The longer an observer remains in the field, the more likely it will be that police officers will leave work before the end of the shift.

H_{1d}: The longer an observer remains in the field, the more likely it will be that police officers will use force against suspects during police citizen encounters.

H_{1e}: The longer an observer remains in the field, the more likely it will be that police officers will engage in proactive police behavior.

H_{1f}: The longer an observer remains in the field, the more likely it will be that police officers will give more detailed debriefings.

H_{2a}: During the early stages of fieldwork, police officers will be more likely to use force against suspects during police citizen encounters.

H_{2b}: During the early stages of fieldwork, police officers will be more likely to engage in proactive police behavior.

H_{2c}: During the early stages of fieldwork, police officers will be more likely to give more detailed debriefings.

H_{3a}: Regardless of time in the field, police officers will be less likely to use force against suspects following dangerous encounters with citizens (e.g., suspects with weapons).

H_{3b}: Regardless of time in the field, police officers will be less likely to engage in proactive police behavior following dangerous encounters with citizens (e.g., suspects with weapons, suspect attacks or threatens officer).

H_{3b}: Regardless of time in the field, police officers will be less likely to give detailed debriefings following dangerous encounters with citizens (e.g., suspects with weapons, suspect attacks or threatens officer).

Sex of observer

H_{1a}: Male police officers will take longer breaks with female observers. This effect will be constant over the course of fieldwork.

H_{1b}: Male police officers will be more likely to use force during encounters with citizens when accompanied by female observers. This effect will be constant over the course of fieldwork.

H_{1c}: Male police officers will be more likely to engage in proactive policing when accompanied by female observers. This effect will be constant over the course of fieldwork.

H_{1d}: Male police officers will be more likely to give detailed debriefings when accompanied by female observers. This effect will be constant over the course of fieldwork.

H_{2a}: Male police officers will take longer breaks with female observers. This effect will be stronger during early stages of fieldwork, but will decrease over time.

H_{2b}: Male police officers will be more likely to use force during encounters with citizens when accompanied by female observers. This effect will be stronger during early stages of fieldwork, but will decrease over time.

H_{2c}: Male police officers will be more likely to engage in proactive policing when accompanied by female observers. This effect will be stronger during early stages of fieldwork, but will decrease over time.

H_{2d}: Male police officers will be more likely to give more detailed debriefings when accompanied by female observers. This effect will be stronger during early stages of fieldwork, but will decrease over time.

H_{3a}: Male police officers will be less likely to use force during encounters with citizens when accompanied by female observers. This effect will be constant over the course of fieldwork.

H_{3b}: Male police officers will be less likely to engage in proactive policing when accompanied by female observers. This effect will be constant over the course of fieldwork.

H_{4a}: After a potentially dangerous activity or encounter, male police officers will be less likely to use force during encounters with citizens when accompanied by female observers. This effect will be constant over the remainder of fieldwork.

H_{4b}: After a potentially dangerous activity or encounter, male police officers will be less likely to engage in proactive police behavior when accompanied by female observers. This effect will be constant over the remainder of fieldwork.

H_{4c}: After a potentially dangerous activity or encounter, male police officers will be less likely to give more detailed debriefings when accompanied by female observers. This effect will be constant over the remainder of fieldwork.

H_{5a}: After a potentially dangerous activity or encounter, male police officers will be less likely to use force during encounters with citizens when accompanied by female observers. This effect will be stronger immediately following the dangerous activity or encounter, but will decrease over time.

H_{5b}: After a potentially dangerous activity or encounter, male police officers will be less likely to engage in proactive police behavior when accompanied by female observers. This effect will be stronger immediately following the dangerous activity or encounter, but will decrease over time.

H_{5c}: After a potentially dangerous activity or encounter, male police officers will be less likely to give detailed debriefings when accompanied by female observers. This effect will be stronger immediately following the dangerous activity or encounter, but will decrease over time.

Observer's attitudes toward police and police work

H_{1a}: Police officers will take shorter breaks with observers with negative attitudes toward police. This effect will be constant over the course of fieldwork.

H_{1b}: Police officers will be less likely to use force during encounters with citizens when accompanied by observers with negative attitudes toward police. This effect will be constant over the course of fieldwork.

H_{1c}: Police officers will be less likely to engage in proactive policing when accompanied by observers with negative attitudes toward police. This effect will be constant over the course of fieldwork.

H_{1d}: Police officers will be less likely to give detailed debriefings when accompanied by observers with negative attitudes toward police. This effect will be constant over the course of fieldwork.

H_{2a}: Police officers will take shorter breaks with observers with negative attitudes toward police. This effect will be stronger during later stages of fieldwork.

H_{2b}: Police officers will be less likely to use force during encounters with citizens when accompanied by observers with negative attitudes toward police. This effect will be stronger during later stages of fieldwork.

H_{2c}: Police officers will be less likely to engage in proactive policing when accompanied by observers with negative attitudes toward police. This effect will be stronger during later stages of fieldwork.

H_{2d}: Police officers will be less likely to give detailed debriefings when accompanied by observers with negative attitudes toward police. This effect will be stronger during later stages of fieldwork.

Status congruency

H_{1a}: The more similar observers and police officers are demographically (e.g., age, sex, social class), attitudinally (e.g., similar attitudes about the role of police and observers with positive attitudes toward police), and experientially (e.g., observers with experience in law enforcement or aspirations for a career in law enforcement), the more time that officers will spend on breaks. This effect will be constant over time.

H_{1b}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more time that officers will spend running errands during the shift. This effect will be constant over time.

H_{1c}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more likely it will be that observers will witness police officers use of force against citizens during police-citizen encounters. This effect will be constant over time.

H_{1d}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more likely it will be that police officers will engage in proactive policing. This effect will be constant over time.

H_{1e}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more detailed the debriefings obtained from police officers following police-citizen encounters. This effect will be constant over time.

H_{2a}: The more similar observers and police officers are demographically, attitudinally, and experientially, the more time that officers will spend on breaks. This effect will become stronger over time.

H_{2b}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more time that officers will spend running errands during the shift. This effect will become stronger over time.

H_{2c}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more likely it will be that observers will witness police officers use of force against citizens during police-citizen encounters. This effect will become stronger over time.

H_{2d}: The more similar observers and police officers are demographically and attitudinally, and experientially, the more likely it will be that police officers will engage in proactive policing. This effect will become stronger over time.

H_{2e}: The more similar observers and police officers are demographically and attitudinally, the more detailed the debriefings obtained from police officers following police-citizen encounters. This effect will become stronger over time.

Stability of observers' assignment

H_{1a}: The more stable the observers' beat assignment, the more time that officers will spend on breaks. This effect will be stronger during later stages of fieldwork.

H_{1b}: The more stable the observers' beat assignment, the more time that officers will spend running errands during the shift. This effect will be stronger during later stages of fieldwork.

H_{1c}: The more stable the observers' beat assignment, the more likely it will be that observers will witness police officers use of force against citizens during police-citizen encounters. This effect will be stronger during later stages of fieldwork.

H_{1d}: The more stable the observers' beat assignment, the more likely it will be that police officers will engage in proactive policing. This effect will be stronger during later stages of fieldwork.

H_{1e}: The more stable the observers' beat assignment, the more detailed the debriefings obtained from police officers following police-citizen encounters. This effect will be stronger during later stages of fieldwork.

H_{2a}: The less stable the observers' beat assignment, the more likely it will be that

observers will witness police officers use of force against citizens during police-citizen encounters. This effect will be stronger during earlier stages of fieldwork.

H_{2b}: The less stable the observers' beat assignment, the more likely it will be that police officers will engage in proactive policing. This effect will be stronger during earlier stages of fieldwork.

H_{2c}: The less stable the observers' beat assignment, the more detailed the debriefings obtained from police officers following police-citizen encounters. This effect will be stronger during earlier stages of fieldwork.

CHAPTER FIVE: Data and Analysis Plan

Data collection

Fieldwork for POPN was conducted in Indianapolis and St. Petersburg during the summers of 1996 and 1997 respectively. Shifts were selected to capture variation in activity level based on time of day and day of the week, but presumptively busy days (Thursday through Saturday) were oversampled to maximize the number of police-citizen encounters. Observers rode with patrol officers in 12 of Indianapolis' 50 patrol beats and 12 of St. Petersburg's 48 patrol beats. Beats in both sites were selected to capture variation in service conditions within each jurisdiction. In addition, an attempt was made to match service conditions for beats selected from St. Petersburg and Indianapolis (Parks et al. 1997; Parks et al. 1998; Mastrofski et al. 1998a).

Trained observers accompanied patrol officers over the course of an entire shift. Whenever possible, observers were each assigned to one district for the duration of field work to allow patrol officers to become familiar with observers and to allow observers to become familiar with the beats under study. Observers unobtrusively took brief field notes on police-citizen interactions. Observers later prepared a detailed narrative account of events and coded items associated with observed events on computers located at the research office. The most detailed information focused on police-citizen encounters. In addition, structured interviews were completed with more than 95 percent and more than

97 percent of officers with patrol assignments in Indianapolis and St. Petersburg respectively (Mastrofski and Parks 1990; Parks et al. 1997; Parks et al. 1998). Finally, all of the observers were surveyed during training (time 1), immediately before field work (time 2), and immediately after completion of field work (time 3).

Data

The large number of observers within the same police organization and the breadth of data collected by POPN offers a unique opportunity to systematically examine observer bias (see Reiss 1971). Table 4.1 lists the key independent and dependent variables to be used in the analysis for each type of observer bias. The qualitative data consist of the narratives which include a section on reactivity written after each ride as well descriptions of officers' activities and encounters. Quantitative data would come from a variety of POPN instruments. The time 1, time 2, and time 3 observer surveys contain information about observers' demographic characteristics (e.g., age, sex, race, education, etc.), job experience, career ambitions, and attitudes about aspects of police work (e.g., use of force) and the trustworthiness of the police. Structured interviews with police officers provide information about officers' demographic characteristics (e.g., age, sex, race, education, years of experience, etc.) and their attitudes about the role of police, citizens, and occupational attitudes which may predispose officers toward one "style" of policing (e.g., professional vs. enforcer) (Worden 1995) over another. Control variables include encounter level covariates (e.g., visibility of encounter) as alternate explanations of proactive police behavior. Although observer bias is one possible explanation for variation in police behavior, situational factors form an important set of factors that could account for the relationship between observer bias and police behavior (Worden 1989).

Analysis Plan

Standard checks on reliability and validity do not translate well to observational data. Although a validity criterion would be desirable, it is too costly to have two observers in the same place at the same time so that one observer could act as a check on another. When replication of fieldwork does occur, there is a time gap between research projects so any differences in results could be a result of changes in research subjects over time or from invalid data collection by one project or the other (or both). Since descriptions of field research methodology are typically sketchy and vague, even with replication it is difficult to determine which research project collected the potentially "valid" data given inconsistent findings because there are no standards to differentiate good observational data from the bad (Hyman et al. 1954; Manning 1972). Observer bias has defied systematic examination since errors in observation are difficult to detect (let alone correct) because results are presented as a plausible unit (Friedrichs and Ludtke 1975).

As a result, this analysis will focus on interpreting variation in observational data that is attributable to observers or the passage of time rather than more traditional explanations of police behavior, which will serve as control variables in this analysis. Three broad categories of control variables will be included in this analysis as alternative explanations for variation in police behavior: the pace of activity for the shift, the patrol officer's work orientation, and situational factors associated with police-citizen encounters (see Table 4.1 for a detailed listing). First, the activity level of the shift can have a variety of effects on police behavior. The busier the shift, the lower the amount of discretionary time available to the patrol officer and the less opportunity for the patrol

officer to "freelance" and engage in proactive police behavior. Similarly, officers will have less time available to give detailed explanations for their decision making during debriefings. The indicators of activity level of the shift will include: shift, day of the week, number of calls for service per shift, number of encounters with citizens per shift, level of crime within the beat, and staffing level.

Second, the patrol officer's work orientation is another possible explanation for variation in police behavior. The shorter an officer's length of service, the more likely the officer will engage in proactive police behavior and use of force. An officers' occupational attitudes could predispose them to be more or less proactive or to lean toward informal dispositions over formal ones in police citizen encounters, thus accounting for variation in use of force and/or arrest behavior. Officers could also have a narrow role orientation which focuses exclusively on traffic enforcement or officer initiated encounters. Similarly, officers who concentrate on DUI enforcement or domestic disputes could cut into other aspect of police behavior (e.g., discretionary time, use of force, officer initiated encounters, and arrest) since both are time consuming and labor intensive activities. While inflating the amount of discretionary time, negative attitudes toward management could account for a "lay low" mentality and be an important factor in explaining low levels of proactive police behavior and use of force. Finally, officers who feel that citizens within their beat respect the police may be less likely to use formal sanctions (i.e., arrest, use of force) during police citizen encounters.

Third, situational factors associated with police citizen encounters are the best predictor of police arrest behavior and also predict police use of force (see Sherman 1980; Worden 1989; Smith and Visher 1981 for an overview). In addition, situational factors

also provide a proxy for the complexity of the situation that the officer must face. More complex encounters require more of an officer's time. The more time officers spend on any single encounter, the less time for proactive police behavior and the less discretionary time available to the officer.

When possible, comparisons of observational data from observers who rode with the same officer will be made. However, the bulk of this analysis will make inferences about the validity of police observational data by interpreting variation between constructs related to observer bias and specific aspects of police and citizen behavior (intraobserver variation) while controlling for more traditional explanations of police behavior (see Table 4.1). If variation in police behavior can be attributed to observer bias by a pattern of significant effects in the multivariate equations outlined in Table 4.1, then bias is presumed to be present in the data since some observers, over the course of fieldwork, are systematically contaminating observational data while others are not (see Cass 1991 for a similar analysis of interviewer bias).

The analysis of observer bias will be broken down into several parts. First, POPN qualitative data will be examined. A qualitative analysis of the descriptions of reactivity that were included for each ride will be used to identify situations where reactivity occurs. Second, descriptive statistics (e.g., mean and standard deviation) and bivariate analyses (e.g., chi-square) will focus on measuring the bivariate relationship between independent and dependent variables listed in Table 4.1. Third, "main effects" multivariate equations with control variables will be constructed to determine the direct effects of constructs related to observer bias listed in Table 4.1 on relevant dependent variables. Fourth, "interaction effects" multivariate equations with control variables and the appropriate

product terms will be added to the regression equations to test for interaction effects between the independent variables and control variables. Depending on the coding of the dependent variable, the quantitative analyses will utilize ordinary least squares, probit, or logit (Aldrich and Nelson 1984).

The multivariate analysis outlined above will be utilized in an *intershift* analysis of observer bias. More specifically, the intershift quantitative analyses will be conducted to see if there are measurable differences in the quality of observational data by comparing data collected during early rides with data collected during the middle or later stages of field work.

For example, the number of officer initiated traffic enforcement stops per shift will be a dependent variable in the quantitative analysis of reactivity since some officers may become more proactive than normal because they fear that observers are bored. Observer sex (coded 1=male) will be a key independent variable in the quantitative analysis of reactivity. The presence of an attractive female observer may motivate some officers to become more proactive than normal in an attempt to show off and demonstrate their expertise in law enforcement. If the number of officer initiated traffic enforcement stops per shift is regressed on observer sex and, after controlling for the activity level of the shift, the patrol officer's work orientation, and situational factors of the traffic stop (see Table 4.1), the regression coefficient is negative and significant, then bias is presumed since officers are engaging in more proactive traffic enforcement with female observers than male observers. In other words, variation in proactive traffic enforcement in this multivariate equation is attributable to observer sex rather than (or in conjunction with) more traditional explanations of police behavior. This finding suggests that police

officers are reacting to the presence of an observer and engaging in atypical behavior.

CHAPTER SIX: Describing reactivity using qualitative data

Overview of the qualitative data on reactivity

The qualitative data on reactivity come from two sources: First, observers recorded an overall assessment of how officers reacted to the presence of the observer over an entire shift ("ride-level reactivity", N=729 rides or shifts). Observers were instructed to watch and listen to patrol officers over the course of a shift. Some patrol officers explicitly stated whether or not an observer had affected their behavior, but often this was not the case. Observers documented changes in an officer's attitude toward the observer (e.g., facial expressions, comments to other patrol officers, expressions of rage or acceptance, etc.). More importantly, observers tried to identify changes in officer behavior and, if possible, the motivations behind those changes. For example, the patrol officer may change his/her behavior by saying that s/he wants to show you a drug dealer. However, the motivations behind doing so are numerous: to avoid looking lazy or to look good in the eyes of the observer, to demonstrate certain types of police work, or for safety.

The second source of qualitative data on reactivity was derived using coded data on activities or encounters[18] in which observers felt the police changed their behavior because of an observer's presence. POPN data collection included narrative accounts[19] of activities and encounters with citizens in addition to a variety of coded, quantitative data

on citizen and patrol officer behavior for both activities and encounters. Some coded items dealt with the observer's assessment of his/her impact on patrol officer behavior (N=289 activities and encounters out of 35,431 or 0.8% of activities and encounters were coded as being affected by reactivity). Observers input coded data whenever: (1) the patrol officer was, according to the observer's judgment, becoming more proactive or less proactive due to their presence; and (2) the observer helped the patrol officer with police work. Observers were also instructed to describe in the narrative what the patrol officer did or what the patrol officer said to someone else that would lead a reasonable person to presume that the behavioral change was due to the presence of the observer. Thus, if "ride-level reactivity" is an overall assessment of reactivity over the course of a ride, "activities and encounters with reactivity" are more specific examples of *events within a ride* where observers felt reactivity occurred.

Activities and encounters with reactivity also include another important piece of information. Observers coded the start and end time for all activities and encounters over the course of the shift. As a result, the coding scheme will enable one to identify the amount of *time* officers are reacting to the presence of an observer over the course of a shift, and thus to differentiate a ride where an observer requests a five-minute bathroom break and a ride where an officer continuously altered his/her behavior due to the presence of an observer over a 480 minute shift.

Limitations of the qualitative data

Observers accompanied patrol officers over the course of a shift and were asked to determine whether patrol officer behavior was reactive or not. To an unknown degree, each observer could have been more or less attentive and/or conscientious about

recognizing and then recording reactivity. The potential for observer error (i.e., observers make mistakes assessing reactivity in terms of false positives or false negatives) is implicit in all observational data and reactivity is no exception.

In addition, although there were examples of violations of POPN policies recorded within the qualitative data on reactivity, there were incentives that would motivate observers to *underestimate* the amount of reactivity for fear of appearing ineffective or failing to follow POPN guidelines. For example, observers were paid on a ride by ride basis. Observers were not paid for the ride they just completed until *all* of the qualitative and quantitative data was input according to POPN guidelines. Observers' narratives and coded data were double checked for inconsistencies. Until the necessary corrections were made, observers were not paid for the ride. In addition, observers got the same flat rate whether it took 2 hours or 20 hours to input the qualitative and quantitative data. In short, observers may have been less likely to document reactivity within POPN instruments due to: (1) a fear of appearing ineffective or failing to follow POPN guidelines; or (2) maximize their earnings by reducing their workload.

Another limitation of the qualitative data was due to the nature of observer training before fieldwork. The semester long observer training session recognized that it is impossible to eliminate all forms of reactivity. Especially in observational studies of police, reactivity can be viewed as a tradeoff between: (1) building rapport with patrol officers and making them feel at ease; and (2) helping officers in little tasks as a way of showing a sense of "teamwork" so that officers would feel more at ease, as if they were with a partner. The concern was that if observers unilaterally refused to help patrol officers in any way, patrol officers would have felt far more uneasy with their presence

and more inclined to change their behavior as a consequence. Observers were instructed to use their judgment, but to help patrol officers if: (1) the patrol officer was in danger; or (2) if helping the officer in more minor aspects of police work would either establish or strengthen rapport and set the officer at ease. POPN instruments included a coded item for each event within a ride, which specified when and how an observer helps a patrol officer with police work. Since observer training encouraged them to help patrol officers in an effort to build rapport, POPN observational data could overestimate the level of observer effects prevalent in POPN observational data.

Another problem with the qualitative data relates to the accuracy of the estimate of the amount of *time* an officer reacts to the presence of the observer. As noted above, observers coded the start and end time for all activities and encounters over the course of the shift. As a result, the qualitative analysis will present descriptive statistics to accompany the frequency distributions for the amount of time an officer is more proactive, less proactive, and helped by an observer. Although the coding scheme can identify specific *events within rides* where an officer reacted to the presence of an observer, the estimates of time more proactive, time less proactive, and time observers help *overestimate* the amount of time a patrol officer reacts to the presence of the observer. For example, an officer took an observer on a "tour" of a crack house in the beat that took place within a 30 minute stint of general motorized patrol. It is unclear how much time within the 30 minutes of general motorized patrol the "tour" consumed and how much time was general motorized patrol.

On a related note, observers categorized patrol officer behavior as more proactive when they felt the officer was showing off for their benefit when taking them to gruesome

non-dispatched calls for service (e.g., the scene of a stabbing). However, it is unclear whether the officer would have gone to exciting but non-dispatched calls for service even if the observer was not present, since bored patrol officers often hang around these crime scenes when free from calls for service.

A more fundamental problem with all POPN data utilized in this analysis of reactivity is that there is no way to compare patrol officer behavior *without* an observer to patrol officer behavior *with* an observer. If reactivity is caused by the presence of the observer, reactive effects will be strongest when comparing patrol officer behavior with an observer to patrol officer behavior without an observer. Instead, this analysis will utilize the observational data in order to conduct multivariate analyses which examine variation in patrol officer behavior *during fieldwork* attributable to: (1) the social dynamics of reactivity outlined in this chapter; (2) observer characteristics; (3) the level of congruency between observer and patrol officer characteristics; and (4) time in the field.

Overview of qualitative analysis

The field research methodological literature is extremely fragmented and did not offer a framework to structure my qualitative analysis since no studies have taken an in-depth look at the effects of reactivity on observational data. However, I developed two overarching objectives after reviewing the qualitative data. First, I needed to identify forms of patrol officer behavior susceptible to reactivity. The anthropological field research literature and qualitative fieldwork literature *define* reactivity, but there are very few studies that specify behaviors susceptible to reactivity.

Second, I wanted to develop a deeper understanding about reactivity as a social

process involving exchanges between patrol officers and observers. The field research literature alludes to this process by discussing higher order concepts such as trust and the need for rapport between field researchers and research subjects, but my firsthand experiences as a POPN observer gave me much deeper insight. I found that some officers were very uncomfortable when assigned an observer. These officers were self-conscious about the presence of an observer and gave cues to suggest (or explicitly stated) that they were reacting to the presence of an observer. A more interesting finding was some officers stated *why* they were self-conscious about the presence of an observer: the officers were uncomfortable about being evaluated or judged by observers. As a result, a deeper understanding about the behavioral or verbal "cues" from officers could: (a) uncover additional forms of patrol officer behavior susceptible to reactivity when the context of these social exchanges was examined; and (b) uncover more proximate indicators of reactivity in order to more accurately assess the impact of reactivity on the quality of observational data.

The culmination of the qualitative analysis was the development of a coding scheme[20] in order to categorize major themes at the ride level (for "ride level reactivity") and at the activity and encounter level (for "activities and encounters with reactivity") within the qualitative data. These themes included: (a) patrol officer behavior susceptible to reactivity; and (b) social processes or cues which suggest that patrol officers are behaving in an atypical manner. The creation of the coding scheme served a number of purposes. First, the coding scheme was used as a framework to categorize and describe both reactivity (behavioral changes on the part of patrol officers) and the social processes that accompany reactivity. The description of reactivity will be the focus of the

remainder of the chapter. Whenever possible, the events will be either direct quotations or summaries of the qualitative data. However, there are a handful of cases in which details have been changed in order to protect the confidentiality of patrol officers, observers, and/or citizens without affecting the substance of the information.

Second, the coding scheme will be converted into quantitative data in order to measure the prevalence of behavioral change and social cues relating to reactivity in order to determine whether reactivity is an *isolated instance* or a *systematic bias* within POPN observational data. If the description of reactivity within this chapter "tell a story," the structure of POPN data collection allows for ride level and encounter level multivariate analyses of the coded qualitative data along with a multitude of control variables within the larger quantitative data set. A pattern of significant findings based on the coding of the qualitative data while controlling for more traditional explanations of patrol officer behavior will be interpreted as evidence of a pattern of bias within the data.

The bulk of the findings relate to reactivity, but the qualitative analysis also unearthed some important sampling issues that should be considered when weighing the strength of the findings from the qualitative analysis and, more generally, the validity of police observational data. They include:

- A sampling issue. During 1.4% of the rides (or shifts under observation), patrol officers openly admitted that they demand advance warning before having riders in order to take days off in order to avoid observation. Other officers reportedly worked out deals with supervisors in the presence of observers to avoid observation. In these cases, supervisors assigned observers to patrol officers who are used to having civilian riders.
- Another sampling issue. Four St. Petersburg officers claimed that dispatchers would not send them on dangerous calls if they have a civilian rider. As a result, dangerous calls could be undersampled because dispatchers screened out these calls.

- During 17.3% of rides, officers explicitly stated that they were changing their behavior due to the presence of the observer.
- Patrol officers indicated that they were at ease with the presence of an observer during 42.4% of the rides by allowing observers access to their second gun, bad mouthing co-workers or citizens, criticizing police administrators, sharing personal problems, running personal errands, and going to strip clubs with observers over the course of a shift. However, patrol officers may be inadvertently changing their behavior by conducting tours of the district and taking observers on "interesting" calls for service.
- Patrol officers indicated they were self-conscious about the presence of an observer for 20.9% of rides. Patrol officers reacted defensively when questioned about their actions and became tentative in their decision making because they feared they were being evaluated and doubted the promise of confidentiality. Some officers asked to look at the observers' notes to set their minds at ease.
- Observers caused reactivity by helping patrol officers in some capacity during 10.7% of rides. Observers distracted officers with interesting conversations and helped with police work (e.g., assisted in apprehending suspects).
- Officers were over 8 times more likely to be more proactive (15.6% of rides) than less proactive (1.9% of rides).

Reactivity embedded within social exchanges: social cues from patrol officers, observer behavior, and other factors

The end result of my review of POPN qualitative data was the creation of a coding scheme which primarily focused on identifying important aspects of the interpersonal dynamics of reactivity (e.g., social cues from patrol officers and observer behavior) as well as patrol officer behavior susceptible to reactivity. As a result, the remainder of this chapter will be broken down into five parts. The first part will discuss how social cues from patrol officers can act as an indicator for reactivity. Two tables of frequency counts will supplement the descriptive data for each social cue. One table specifies the prevalence of social cues as a percent of rides. Another table lists the frequency of social cues as a percent of events within rides.[21] By cross referencing these two tables, these

frequency tables can also give an estimate of the density (number of events per shift) of reactivity by patrol officers.

The second section will discuss other police officers (e.g., supervisors and dispatchers) who could trigger reactivity. The third section will focus on the impact of observer behavior on police observational data. As noted above, the descriptive "raw" data will be supplemented by two tables of frequency counts of the percent of rides and percent of events within rides when an officer is more proactive or less proactive. In addition, two tables of frequency counts of percent rides and percent of events will look at stronger evidence of reactivity: instances when the officer explicitly stated the behavioral change was due to the presence of the observer. The structure of the qualitative and quantitative data also allow for the computation of descriptive statistics on: (a) the amount of *time* per shift; (b) time per *event*; and (c) time per *encounter* that an officer is helped by observers, more proactive, and less proactive.[22] The final section will focus on the effect of time in the field on the quality of observational data. Once again, descriptive data will be supplemented by frequency counts of the percent of rides and percent of events within rides where an observer feels that the officer is changing his/her behavior over time.

Social cues from patrol officers and reactivity

The purpose of the next section is to review themes within POPN qualitative data on reactivity which suggest that social cues from patrol officers accompany atypical behavior by patrol officers. The four social cues discussed below are critical aspects of the social context of reactivity.

Patrol officer is self-conscious about the presence of an observer

Table 6.1 and Table 6.2 specify the percent of rides and percent of events (activities and encounters) where patrol officers give indications that they are self-conscious about the presence of the observer.[23] Table 6.1 lists frequency distributions for the percent of rides where an officer gives any indication that s/he is self-conscious. Row one of Table 6.1 gives the most general measure of self-consciousness (*self-conscious – all cases).* During 20.9% of rides, the patrol officer indicated that he was uncomfortable or self-conscious about the presence of the observer. Observers documented self-consciousness on the part of patrol officers while making their overall assessment of reactivity for the entire ride ("ride form reactivity") during 15.4% of rides. Officers also indicated they were self-conscious during specific events within a ride ("activities and encounters with reactivity") and during encounters with citizens during 8.5% and 2.2% of rides respectively.

Table 6.2 gives a different perspective on the level of self-consciousness exhibited by patrol officers within POPN qualitative data. Instead of making a frequency count of *rides* where officers indicate they are self-conscious, Table 6.2 gives a detailed breakdown of self-consciousness exhibited in *events within rides*. While Table 6.1 identifies the documentation of self-consciousness in all activities and encounters in 5.2% of rides (62 out of 729 rides), Table 6.2 shows that officers exhibit self-consciousness in only .3% of all activities and encounters (98 out of 35,431 events).[24] By comparing frequency counts from Table 6.1 and 6.2, the 98 activities and encounters in Table 6.2 where an officer indicates s/he is self-conscious is scattered through 62 rides in Table 6.1.

A similar comparison can be made between percent ride and percent encounters for all encounters in Table 6.1 (column four) and 6.2 (column three). Patrol officers acted self-conscious during the 23 encounters scattered between 16 rides. While officers indicated they were self-conscious in 2.2% of rides (16 out of 729 rides), officer indicated they were self-conscious in only .3% of encounters (23 out of 7,443 encounters).

Table 6.2 also shows that officers are slightly more likely to be self-conscious during activities and encounters that they participate in *on their own initiative.* More specifically, officers are more likely to act self-conscious during officer initiated activities and encounters (.4%) and officer initiated encounters (.5%) compared to all activities and encounters (.3%) and all encounters (.3%).

While the frequency counts in Table 6.1 and 6.2 specify the prevalence of self-consciousness within POPN qualitative data, the descriptive "raw" data give concrete examples of self-consciousness in patrol officers. A typical comment from a self-conscious patrol officer was "should I be doing this in front of you?" One patrol officer said that patrol officers were going to alter the way they did things in the presence of an observer since it was impossible for an observer to be "invisible" because patrol officers are always somewhat suspicious of people who ride with them. Another officer stated that no matter how hard an observer tried to stay out of her way and not interrupt her normal workday, an observer's presence ultimately disrupted her behavior in one way or another. In other words, comments from some patrol officers suggested that they are very self-conscious of the presence of an observer. The remainder of this section will focus on describing three cues which suggest that patrol officers are self-conscious about the presence of an observer (patrol officer does not trust the observer, patrol officer is visibly

uncomfortable with the presence of an observer, or the patrol officer is self-conscious about notetaking by observers over the course of a shift). Next, a few officers explicitly stated the underlying cause for their self-consciousness (a fear of evaluation). Finally, three types of patrol officer behavior (breaks and errands, use of force, and avoidance of observation) which could be affected by self-consciousness in patrol officers and undermine the face validity of POPN observational data will be overviewed.

Three behavioral cues which suggest patrol officers are self-conscious

Three behavioral cues suggest that patrol officers are self-conscious about the presence of an observer. First, Table 6.1 shows that during 2.3% of rides, patrol officers indicated that they did not trust observers to honor their promise of confidentiality. Observers did not identify specific events within rides, but did document this theme within the qualitative data when making an assessment of reactivity over the course of an entire ride ("ride form reactivity"). Officers felt uncomfortable (for one reason or another) about having "someone looking over their shoulder." One officer tried to convince a POPN observer that causal conversation within the patrol car should remain private and should not be recorded in field notes. Another officer tried to convince an observer that "some things should not be remembered" and tried to convince the observer that this was true. Some officers worried that comments made about supervisors or departmental management would "get back to the chief." One patrol officer was very suspicious of the project because he felt that the race riots that occurred in one site were the reason that the department was chosen for observation. Other officers felt the data could be manipulated to make the patrol officer look bad.

Second, patrol officers were visibly uncomfortable with the presence of an

observer or requested privacy from the observer. Table 6.1 shows that observers documented that patrol officers were visibly uncomfortable and/or requested privacy in "ride form reactivity" during 3.3% of rides. Officers acted visibly uncomfortable or requested privacy during a specific event (activity or encounter) over the course of a shift during 3.7% of rides. Officers were visibly uncomfortable or requested privacy during encounters in less than 1% of rides.

Table 6.2 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer acted visibly uncomfortable or requested privacy from the observer. Officers acted visibly uncomfortable or requested privacy during only 35 out of 35,431 (or .3% of) activities and encounters. By cross-referencing with data in Table 6.1, you find that these 35 events were scattered over 27 rides (or 1.3 events per ride on average). Similarly, officers were visibly uncomfortable or requested privacy during 8 encounters (or .1% of encounters) scattered over 7 rides. Officers were also slightly more likely to feel uncomfortable and/or request privacy when engaging in activities and encounters on their own initiative (.2% of officer initiated activities and encounters and .2% of officer initiated encounters versus .1% for all activities and encounters and .1% for all encounters).

While the frequency counts in Table 6.1 and 6.2 specify how often officers acted visibly uncomfortable and/or requested privacy, the descriptive "raw" data give specific examples of this manifestation of self-consciousness in patrol officers. One officer was noticeably introverted, chose not to engage in conversation, and appeared uncomfortable at times. Another officer was uncomfortable with having an observer because she was unfamiliar with her beat since she had only been working at the department for a short

time. Other situations which made patrol officers noticeably uncomfortable were: (1) when being accompanied by an observer during an appearance before the Accident Review Board because of an accident the officer had been involved in; (2) when a patrol officer decided not to ticket an ex-police officer who was rude and belligerent after being pulled over for running a stop sign;[25] (3) during an investigation of an allegation from a prostitute that another patrol officer was forcing the prostitute to have sex with him; (4) when fellow patrol officers were making racist and sexist comments about citizens during a meal break; (5) when another patrol officer acted disrespectfully toward a drugged up drug user by "getting down to their level" and using "their language" (urban slang/ebonics).

As noted above, patrol officers also requested privacy from observers over the course of a shift.[26] The tone of these requests ranged from a very rude direct order to a firm but polite request. For example, some officers rudely told the observer to stay right here and just disappear for some time while in roll call without any explanation. Another officer rudely told a female observer to meet him at the car in 30 minutes because he was going to eat his lunch in the men's locker room. At other times, the observed patrol officer told the observer to stay in the car while having a private conversation with another officer or a personal friend. Observers could see the officer, but could not hear the conversation.

Sometimes it was obvious why a patrol officer requested privacy. The most common reason was patrol officers were not comfortable having observers document and accompany them while running errands or meeting with civilian friends over the course of a shift. As a result, patrol officers commonly told observers to "wait in the car" while

conducting personal business. A much rarer but more intuitive reason for a request for privacy occurred when the patrol officer under observation was pulled aside by another officer and told to leave the scene of a pursuit when the observer could clearly see that a third officer was "being quite brutal" with the suspect by kicking him around. O1 later told the observer that he decided to leave the scene so abruptly because the other officer thought that the observer should not be on the scene. On a different ride, one Field Training Officer needed to give a probationary officer his evaluation at the end of the shift and did not feel it was any of the observer's business so he told the observer to go home. For another ride, the patrol officer ordered the observer to stay near the front of the cruiser while he got a brown paper bag with a bottle of booze in it out of the trunk and placed it in the trunk of another officer's vehicle after his car broke down mid-shift. In a different case, the officer ordered the observer to remain in the car when checking on a family with a mentally ill daughter because "some people don't like strangers knowing about their personal lives." While the reasons for the need for privacy are relatively clear in the cases discussed above, most times the content of these conversations and the reason behind the need for privacy were never shared with the observer.

Third, officers were self-conscious about note taking by observers. Table 6.1 shows the percent of rides where an officer indicates s/he is self-conscious with note taking by observers and/or asks to look at the observer's notes. During 4.5% of rides, observers documented that officers were uncomfortable with note taking by observers in their overall assessment of reactivity for the entire ride ("ride form reactivity"). Patrol officers either explicitly asked to look at an observer's notes or expressed concerns about what an observer was writing during specific events within a ride ("activities and

encounters with reactivity") during 2.1% of rides, but officers expressed concerns about notetaking during encounters for only .4% of rides. One reason why officers were much less likely to express concerns about note taking during encounters was because observers were trained to take notes during unobtrusive times during a ride. For example, observers were taught to take notes while an officer worked on paperwork. Observers also avoided taking notes in the presence of citizens (i.e., during encounters) since patrol officer curiosity or concern about note taking is unavoidable given the close contact necessary for field research on their behavior. However, curiosity or concern from *citizens* (theoretically) could be avoided if observers were selective about when they documented their field notes.

Table 6.2 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer expresses concerns about note taking by observers. Officers acted uncomfortable about note taking during 20 out of 35,431 (or .1% of) activities and encounters. By cross-referencing with data in Table 6.1, these 20 events were scattered over 15 rides (or about 1.3 events per ride on average). Similarly, officers were self-conscious or asked to look at an observer's notes during 5 out of 7,443 encounters scattered over 3 rides (or about 1.7 encounters per ride on average). Table 6.2 also shows that officers were just as likely to express concerns about note taking during officer initiated activities and encounters (.1%) and officer initiated encounters (.1%) when compared to all activities and encounters (.1%) and all encounters (.1%).

While the frequency counts in Table 6.1 and 6.2 specify the prevalence of officers' expression of concerns about note taking by observers, the descriptive "raw" data give concrete examples of this manifestation of self-consciousness in patrol officers.

One officer said the observer was "driving him crazy" pulling out his notebook and writing things down all the time. Another officer sarcastically commented to the observer, "don't forget to take that down" and "don't forget to grab your notebook." A different officer did not like it when an observer took notes so he made an irritated face and leaned over to see what the observer was writing whenever the observer started writing. Other officers were just curious about the exact content of the observer's notes and wanted to know in more detail what information observers were taking down. In general, patrol officers gradually relaxed over time when the observer started relying more on memory, took fewer notes, or took notes at more unobtrusive times.

At times, observers were explicitly told by patrol officers "not to write this down." One patrol officer did not feel comfortable expressing her opinions about police administration. Another officer slammed into a curb during a rainstorm when the car hydroplaned, damaged the wheel well, and threw off his cruiser's front-end alignment. The officer asked the observer not to write this in his notes because he was going to puncture his tire tomorrow (in order to make it look like an accident caused by the tire blowing) and then call a tow truck to repair the damage to the car. A third officer told the observer not to take notes when he blew off a call from dispatch because he didn't feel like driving through the area because of all of the traffic. A different officer asked the observer not to write down that he returned illegal fireworks to a kid's grandmother because police administrators would disapprove. Finally, a conversation among a group of officers during a meal break turned racial when a Sergeant said that he'd "never heard of a good looking nigger." All of the officers at the table laughed and the Lieutenant looked at the observer and said the observer was "going to pull out his notebook and

write about the department's racial problems." However, this didn't stop the officers from continuing with racial comments and the patrol officer under observation was not apologetic about this event. During the meal break, these officers singled out some African-American officers in the department and commented on how "dumb" they are.

Observers were instructed to tell patrol officers that they should feel free to look at their field notes in order to set their mind at ease. Most patrol officers did not, but some took them up on their offer. Patrol officers became upset when observers took notes on the amount of time they spent on meal breaks, going to the restroom, and running errands.[27] One officer said "you've got to take a lot of pop breaks when it's this hot outside." Another officer did not want to get in trouble with Internal Affairs because he spent time visiting strip clubs during the shift. After checking the observer's notes, the officer was relieved to see that the observer had documented the visits to the strip clubs as "business checks." Since observers often used a "short hand code" for field notes, looking at field notes set most patrol officer's minds at ease.

What causes self-consciousness in patrol officers: a fear of evaluation

The previous section talked about three verbal or behavioral cues which indicated that patrol officers are self-conscious about the presence of an observer: a fear that observers would not honor promises of confidentiality, signs that officers were visibly uncomfortable with the observer, and self-consciousness about note taking by observers. However, in addition to these behavioral cues about self-consciousness, my review of POPN qualitative data revealed another theme which suggests what fuels self-consciousness in patrol officers: a fear of evaluation. Table 6.1 shows the percent of rides where an officer indicates s/he feared that the observer was evaluating his/her behavior.

During 3.3% of rides, observers documented that officers were concerned that observers were evaluating their behavior in their overall assessment of reactivity for the entire ride ("ride form reactivity"). Patrol officers also expressed fear of evaluation during specific events within a ride ("activities and encounters with reactivity") and during all encounters during .7% and .4% of rides respectively.

Table 6.2 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer fears the observer is evaluating his/her behavior. Officers expressed these concerns 10 out of 35,431 (or less than .1% of) activities and encounters. By cross-referencing with data in Table 6.1, you find that these 10 events were scattered over 5 rides (or 2 events per ride on average). Similarly, officers feared evaluation during 5 out of 7,443 (or .1% of) encounters scattered over 3 rides (or about 1.7 events per ride on average). Also, officers were more likely to fear an observer was evaluating his/her behavior during all encounters or officer initiated encounters (.1% for columns three and four) compared to a combination of activities and encounters (less than .1% for columns one and two). Although the interpretation of this finding is speculative, it appears that patrol officers are more concerned about being evaluated when making their most complex and ambiguous decisions: dealing with citizens (during encounters) who either request police service or are subject to legal sanctions (e.g., suspects).

While the frequency counts in Table 6.1 and 6.2 specify the prevalence of officers' fear of evaluation, the descriptive "raw" data give concrete examples of this manifestation of self-consciousness in patrol officers. Patrol officers were afraid that observers were judging the decisions that they made. Underlying this fear of being

judged by observers was a fear that observers are there to evaluate or critique their performance in some way. Some patrol officers were concerned that the observer was writing something critical about them in their notes. Other officers asked observers if they approved of decisions they made during encounters with citizens or they asked the observer "if they did anything wrong." One patrol officer asked the observer if he worked for the department and was evaluating him. This reaction occurred most often when patrol officers were conducting personal business or running errands during the shift or after extreme instances of use of force. Officers often became defensive about taking long breaks or running errands during the shift (e.g., everyone does it) or attempted to shield observers from extreme instances of use of force (e.g., pain compliance, mace, or fists) by limiting their access or exposure to these events (e.g., abruptly leave the scene).

Self-consciousness and patrol officer behavior

If patrol officers are noticeably self-conscious and feel that observers may be evaluating or critiquing their behavior, then patrol officers may be reacting to the presence of an observer and changing their behavior. The purpose of this section is to discuss four types of patrol officer behavior that could be impacted by reactivity due to self-consciousness (breaks and errands, use of force, the decision to arrest, and avoidance of observation).

Patrol officers acted uncomfortable or self-conscious about the presence of observers when taking breaks or running errands during the shift. Table 6.1 shows that observers documented officers were self-conscious during breaks and errands in "ride form reactivity", specific events within a ride ("activities and encounters with reactivity") and encounters within a ride during 5.5%, 4.0%, and 1.0% of rides respectively.

Table 6.2 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer acted self-conscious about the presence of the observer during breaks and errands. Officers expressed concerns about the presence of an observer during breaks and errands in 39 out of 35,431 (or .1% of) activities and encounters. By cross-referencing with data in Table 6.1, you find that these 39 events were scattered over 29 rides. Similarly, officers were uncomfortable with the presence of an observer during breaks and errands during 11 out of 7,443 (or .1% of) encounters scattered over 7 rides. Not surprisingly, officers were more likely to be self-conscious about the presence of observers during breaks and errands during officer initiated activities and encounters and officer initiated encounters (.2% and .3% respectively) compared to all activities and encounters and all encounters (.1% and .1% respectively) since officers take breaks and run errands during their discretionary time (i.e., when free from calls for service).

While the frequency counts in Table 6.1 and 6.2 specify the prevalence of expressions of self-consciousness by patrol officers during breaks and errands, the descriptive "raw" data give concrete examples of this manifestation of self-consciousness in patrol officers. More specifically, officers requested privacy and asked observers to stay in the cruiser when speaking with friends about personal business, going to the bank, dropping off dry cleaning, visiting the tree doctor, making personal phone calls, visiting friends in the hospital, getting cash from the ATM, or picking up a relative from the doctor's office. One officer asked the observer "not to write down" when he went to a convenience store outside of the city two times during a shift. Another officer said he was not going to the store because the observer was taking notes and may report what he

was doing. However, after the observer explained the confidentiality agreement, the officer chose to run his errand and go to the store. A different officer stated that every errand he ran during the shift was really "community policing."

Observers also disrupted patrol officer behavior during breaks. One officer stated that she would be at home sleeping if the observer were not riding with her. Another officer admitted that he usually stops, parks, and reads while waiting for calls. Instead, the officer spent much more time driving than was usual for him. Two other patrol officers timed themselves to make sure they did not go over time for their lunch break. A different officer rudely told a female observer he would meet her at the car in 30 minutes because he was going to eat his lunch in the men's locker room.

Patrol officers also became self-conscious when either witnessing or actively participating in use of force against citizens in the presence of an observer. In Table 6.1, observers documented two rides (or .3% of rides) in their overall assessment of reactivity for the entire ride ("ride form reactivity") where patrol officers were visibly uncomfortable with the presence of an observer when the observer witnessed use force against a citizen. Interestingly, observers identify more rides through specifying events (activities or encounters) *within a ride* where officers are self-conscious about use of force (3 rides or .4% of rides) compared to those identified within "ride form reactivity" (2 rides or .3% of rides).

Table 6.2 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer acted self-conscious during incidents of use of force. Officers acted self-conscious when either witnessing or participating in use of force against citizens in less than .1% of activities and encounters. By cross-referencing

with data in Table 6.1, you find that these 3 events were evenly distributed over 3 rides. Similarly, officers were uncomfortable with the presence of an observer during incidents of use of force during 2 out of 7,443 (or less than .1% of) encounters scattered over 2 rides. Patrol officers were also slightly more likely to be self-conscious about observers witnessing use of force during officer initiated encounters (.1% of officer initiated encounters) compared to percent of all activities and encounters, officer initiated activities and encounters, and all encounters (less than .1% for each). One possible interpretation of this frequency distribution is that the officer may second-guess him/herself during officer initiated encounters where they have to use force against citizens since the officer entered into these encounters at his/her discretion. The officer may fear that the observer believed that the officer used too much force or, even worse, that the use of force was unnecessary during the encounter.

Instead of comparing self-consciousness during instances of use of force using the total number of activities and encounters (N=35,431) or the total number of encounters (N=7,443) as a base rate, self-consciousness during use of force can also be examined using the number of instances of use of force observed by POPN observers as a base rate. For example, patrol officers used force by physically restraining suspects[28] (e.g., firm grip, pain compliance, push or throw suspect, or strike suspect with hands, fists, feet, or other part of body) during 167 encounters. Patrol officers indicated they were self-conscious when observers witnessed 2 out of these 167 incidents of use of force (or about 1% of these incidents of use of force).

The descriptive "raw" data give concrete examples of this manifestation of self-consciousness in patrol officers during instances of use of force. After an observer

witnessed another officer use force in order to subdue a suspect, the patrol officer under observation commented a few times over the course of the shift that the observer "was going to write up a report about excessive force." During another ride, an observer accompanied a patrol officer who was trying to apprehend a suspect who fled the scene of an accident. A second officer (O2) told the observer's officer (O1) that the suspect did not like cops and had killed a police officer before. When O1 knocked on the front door, the suspect ran for the back door. O1 kicked the front door open after radioing O2 to cover the back door and rushes inside. O2 and a third officer (O3) came flying out of nowhere and followed O1 and O2 into the house. O3 tried to slam the door in the observer's face, but the observer opened it back up. The three officers slammed the suspect on the couch and then on the ground. As the suspect was struggling, a knee hit the suspect in the mouth and then the suspect's face hit the table. Some teeth came flying out. Two dogs came barking and running toward them so O3 used his mace (CS) spray on them. O1 yelled at O3 not to use it but winded up inhaling a huge mouthful of it. O1 ran out of the house gagging and coughing while O2 and O3 handcuffed the suspect and stayed with the suspect. The suspect needed to go to the hospital before going to jail because he lost a few teeth. A few other officers came up to the observer and tried to make sure the observer didn't see anything or tried to explain why officers need to use force in this manner. O1 was not uncomfortable with what happened after talking it out with a sergeant who said it sounded like a good bust, but the other officers who swarmed to the scene after the fact were very uncomfortable with the presence of an observer. O3 did try to exclude the observer from the event by attempting to close the door in his face before jumping into the fray.

In a separate instance, the officer under observation (O1) and a sergeant (S1) apprehended a man standing on the corner who was giving hand signals to a group of people (presumably drug dealers) who were at an apartment building. O1 and S1 hopped out of their cruisers and slammed the suspect into the back of the police car. O1 put cuffs on the suspect and asked the suspect what his name was. S1 was "pissed off" and yelled, "if you lie to me motherfucker I'm going to kick your ass." Then, S1 grabbed the suspect's handcuffed hands and pulled his arms back hard until the suspect cried out in pain. The suspect complied and gave O1 his name and other information. S1 pushed the suspect against the car hard and continued yelling and cursing at him until he saw the observer. S1 then seemed to gain some control over himself. S1 continued to threaten and to curse at the suspect, but stopped screaming and pushing the suspect around.

In short, the observer felt that his presence affected S1's behavior. The examples above suggest that when observers witnessed instances of use of force like the ones discussed above, patrol officers will attempt to exclude them or patrol officers will use less force than they would use if an observer was not present.

Third, (and on a similar note) patrol officers were self-conscious about arresting citizens. In Table 6.1, observers documented that patrol officers were tentative in making arrests in "ride form reactivity" during 2 out of 729 rides. One officer stated that he might have been easy on people and let them off during the shift due to the presence of the observer. This officer explicitly stated that he did not arrest one citizen because he did not want the observer to think that he was "cold hearted."

Finally, self-consciousness caused another more subtle change in patrol officer behavior. Some patrol officers insisted on having notice before having an observer and

then did everything in their power to avoid having an observer. Table 6.1 shows that observers documented that officers attempted to avoid observation during 1.2% of rides when making an assessment of reactivity over the entire ride ("ride form reactivity"). Observers also identified 3 rides where the officer indicated s/he was avoiding observation during specific events within a ride. By cross-referencing with data in Table 6.1, you find that these 6 events (or less than .1% of activities and encounters) documented in Table 6.2 were distributed over 3 rides (2 activities per shift on average).

The descriptive "raw" data give concrete examples of how and why patrol officers avoided observation. One patrol officer said he switched to work in another district in order to avoid having another observer (but he got one anyway). In other cases, the sergeant or lieutenant switched officer assignments around at the last second because one officer did not mind having riders while the other could not stand having riders. One officer was upset he had an observer because he made a deal with the sergeant to not have any more riders. Other officers put in for time off on days that they were scheduled to have a rider and avoided observation altogether.

While I could only identify a handful of cases (10 shifts or 1.4% of rides) based on my review of the qualitative data, these are only the most egregious examples. These officers were very open about attempting to avoid observation and explicitly told the observers that they were doing so. Therefore, to some unknown extent, more cunning and less vocal patrol officers could also be avoiding observation. This is important because a pattern of avoidance of observation could undermine the representativeness of the sample of patrol officers under observation. If "observer friendly" patrol officers were replacing patrol officers who were extremely uncomfortable with observers, then

estimates of reactivity due to self-consciousness will be underestimated since patrol officers who are most likely to react to the presence of an observer are doing everything in their power to exclude themselves from being observed. If "observer friendly" officers do their jobs differently than the "avoiders," then POPN observational data could be giving a skewed picture of what patrol officers do and how they do it.[29] In short, observers documented that officers were avoiding observation during 1.4% of shifts, which is a relatively small percentage of the total number of shifts under observation. However, the purpose of this section was to highlight a possible problem of systematic avoidance by patrol officers documented in POPN observational data on reactivity.

Overview of findings: self-conscious patrol officers

The second most common theme within POPN qualitative data on reactivity is that patrol officers were self-conscious about the presence of the observer (see Table 6.37). This is surprising since self-consciousness was not explicitly highlighted either within the field research literature or during observer training. However, the open-ended nature of the documentation of qualitative data on reactivity revealed that patrol officers acted self-conscious when arresting citizens, using force (or witnessing use of force) against citizens, and taking breaks and running errands in the presence of the observer. The most extreme reaction to the presence of the observer were attempts on the part of patrol officers to avoid observation by either making deals with supervisors or intentionally taking days off when observers were assigned to ride with them.

Observers were instructed to document the motivations behind self-consciousness in addition to behavioral manifestations of self-consciousness. One of the most common manifestations of self-consciousness documented by observers was that patrol officers

feared evaluation. On a similar note, patrol officers also indicated that they did not trust observers and acted visibly uncomfortable in their presence or requested privacy. Even though observers were instructed to record field notes at unobtrusive times (e.g., while the patrol officer dealt with paperwork), patrol officers indicated they were uncomfortable with the amount of notes observers were taking and, on occasion, asked to look at the observer's notes.

The previous discussion of manifestations of self-consciousness has been an in-depth overview of themes within the qualitative data at different units of analysis (percent ride and percent events). However, there have been no attempts to make comparisons of the prevalence of self-consciousness that cut across the themes outlined in previous sections. The purpose of this section is to highlight the most common themes or manifestations of self-consciousness within "ride form reactivity" (as a percent of rides listed in column 2 in Table 6.1) and "activities and encounters with reactivity" (as both a percent of rides listed in column 3 of Table 6.1 and as a percent of events outlined in Table 6.2).

Table 6.1 shows that 20.9% of patrol officers gave indications that they were self-conscious about the presence of the observer. Observers recorded that patrol officers were self-conscious in "ride form reactivity" while making an overall assessment of reactivity for the entire ride during 15.4% of rides. The three most common manifestations of self-consciousness recorded within "ride form reactivity" were: (1) patrol officers indicated they were self-conscious during breaks and while running errands (5.5% of rides); (2) patrol officers indicated they were uncomfortable with notetaking by

observers (4.5% of rides); and (3) patrol officers acted visibly uncomfortable and requested privacy from observers over the course of the shift (3.3% of rides).

Observers also recorded that patrol officers gave indications they were self-conscious during events within a ride for 8.5% of rides (see Table 6.1). The three most common manifestations of self-consciousness recorded during all events within a ride were identical to those recorded within "ride form reactivity": (1) patrol officers indicated they were self-conscious during breaks and while running errands (4.0% of rides); (2) patrol officers indicated they were uncomfortable with notetaking by observers (2.1% of rides); and (3) patrol officers acted visibly uncomfortable and requested privacy from observers over the course of the shift (3.7% of rides).

Table 6.2 shows that, although officers acted self-conscious during .3% of all events within a ride, patrol officers were more likely to act self-conscious during officer initiated events (.4%) and officer initiated encounters (.5%). The two most common manifestations of self-consciousness are two of the three most common themes outlined in Table 6.1: (1) patrol officers were self-conscious during breaks and errands; and (2) patrol officers acted visibly uncomfortable or requested privacy from the observer during specific events within a ride.

Patrol officer is angry about having an observer forced upon them

Table 6.3 shows percent of rides where the patrol officer indicated s/he was angry about the presence of the observer. Row one of Table 6.3 details the most general measure of patrol officer anger (*patrol officer is angry – all cases*). During 10.8% of rides, patrol officers became upset about having an observer forced upon them. Observers documented that officers were self-conscious during breaks and errands in

"ride form reactivity", specific events within a ride ("activities and encounters with reactivity") and encounters within a ride during 10.4%, 2.3%, and .1% of rides respectively. In other words, patrol officers would express their anger toward observers sporadically over the course of a shift (during 10.4% of rides) and while not in the presence of citizens (2.3% of rides), but were much less likely to react angrily toward observers in the presence of citizens (only .1% of rides).

Table 6.4 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer indicated they were angry about the presence of an observer. Officers reacted angrily to the presence of an observer during .1% of all activities and encounters. By cross-referencing with data in Table 6.3, you find that these 47 events were scattered over 17 rides (or about 2.8 times per shift on average). Similarly, officers reacted angrily to the presence of the observer during only 1 encounter out of 7,443. So, with one exception, officers did not express their anger in front of citizens over the course of a shift.

While the frequency counts in Table 6.3 and 6.4 specify the prevalence of outbursts of anger by patrol officers, the descriptive "raw" data give concrete examples of expressions of anger by patrol officers. Patrol officers became visibly upset (e.g., adopted a pained expression on their faces, shook their heads in disbelief, put their hands over their eyes and rubbed them, muttered expletives, or sighed loudly in frustration) when they found out they would have an observer. Others reacted much more explosively by slamming their hand on the table, storming out of roll call, bluntly refusing to have an observer accompany them, or yelling and swearing while throwing papers around.

In short, patrol officers were upset and angry because they were caught off guard.

The patrol officer did not expect to have a rider and the imposition of having a rider caused an outburst of anger. Table 6.3 shows that during 8.5% of rides observers documented within "ride for reactivity" that patrol officers were angry because they were caught off guard. Patrol officer also expressed anger during all events (activities and encounters) within a ride during 1.1% of rides, but during encounters for only .1% of rides. By cross-referencing Table 6.3 and 6.4, the 18 events where officers were angry because they were caught off guard were scattered over 8 rides (or 2.25 times per shift on average). However, there was only one encounter (out of 7,443) within a single ride where an officer expressed anger because they were caught off guard.

Patrol officers also angrily confronted their supervisors about having an observer. Observers documented these confrontations in "ride form reactivity" during 2.6% of rides and during specific events within rides in 1.2% of rides (see Table 6.3). By cross-referencing Table 6.3 and 6.4, these 29 activities were scattered over 9 rides (or about 3.2 times per shift). Not surprisingly, officers did not confront supervisors in the presence of citizens (i.e., during encounters) since these confrontations took place within the district stationhouse either during roll call or immediately following it.

Patrol officers asked to speak to their supervisor in private and demanded to have the observer switched to another officer.[30] One officer told the sergeant "What the fuck is this shit. I don't want another rider today." After meeting privately with the sergeant, another officer told the observer that no one told him he would have a rider today. It was analogous to "cooking dinner and five people just drop over unannounced." Another officer asked his sergeant to switch the observer to another officer. When the sergeant refused, he became frustrated, visibly agitated, rude and nasty toward the observer. When

he got to the cruiser, he punched his seat and cursed. However, one sergeant was outraged that he was not notified that an observer would be riding on that night so he switched observer's assignment to an officer from another district after the initial officer went into the sergeant's office to complain about having a rider.

Expression of anger continued once the observer and the patrol officer got to the cruiser. Some officers did everything in their power to make an observer feel unwelcome (e.g., give the observer the "cold shoulder" by keeping conversation to an absolute minimum or completely ignoring the observer). Usually the observer could "break the ice" and the patrol officer's anger dissipated within the first hour of the shift. Even after explosive outbursts like the ones described above, officers were at worst tolerant of the observer.

What causes patrol officers to get so angry?

There are two reasons why patrol officers get extremely angry when an observer is forced upon them. First, some officers are very suspicious of strangers and/or do not trust observers (Van Maanen 1982). Reflecting on his field research experiences, Van Maanen (1983) commented that any person who has spent more than a trivial amount of time observing the police will quickly discover that virtually all policemen engage in activities which could get them in trouble, get them fired, or land them in jail. As a result, it is understandable that some officers are reluctant to be accompanied by observers. Police officers must learn to trust observers. One officer warmed up to the observer over the course of the shift, but originally he was afraid he was "going to be stuck with some liberal college student who thought that the police were unnecessary." Thus, the outbursts of anger[31] at the beginning of a shift could be indicative of a lack of trust and a

feeling of vulnerability by patrol officers who are extremely suspicious of citizens in general.

The second reason for outbursts of rage and frustration is much more straightforward: observers are an inconvenience. Patrol officers often expressed anger not being given advance warning when having a rider when they had "plans." These plans usually involved a rendezvous with their girlfriend or various errands (e.g., drop of a child somewhere, haircut appointment, a special dinner engagement) that patrol officers planned on completing over the course of a shift. In Table 6.3, observers documented within "ride form reactivity" that patrol officers rearranged their schedule, canceled plans and put off doing errands during 5 out of 729 rides.

Outbursts of anger and patrol officer behavior

Patrol officers who had outbursts of anger changed their behavior in three ways. First, one officer spent the majority of the shift complaining to anyone and everyone who would listen about how much "fucking bullshit" the ride-along program was and how dangerous it was to have to "babysit" an observer. The observer documented that this officer was angry and complained to anyone who would listen during a ride both within "ride form reactivity" and "activities and encounters with reactivity". By cross-referencing Table 6.3 and 6.4, this officer complained to others during 13 events that occurred during the same shift, but did not complain in front of citizens.

Second, as noted earlier in the text, patrol officers spent less time conducting personal errands during the shift since they rearranged their plans because of the presence of an observer. Finally, some patrol officers put in for time off when given advance notice that observers were riding with them in order to avoid being under observation as

documented in "ride form reactivity" and as specific events within rides for .4% and .1% of rides respectively (see Table 6.3).

Overview of findings: angry patrol officers

Patrol officers indicated they were angry about the presence of the observer during 10.8% of rides. With one exception, patrol officers did not express their anger about the presence of the observer in front of citizens. However, while in the company of other patrol officers (usually during or immediately following roll call), patrol officers were very vocal when expressing their anger. Patrol officers reacted by slamming their hand on the table, storming out of roll call, bluntly refusing to have an observer accompany them, or yelling and swearing about the situation while throwing papers around. Patrol officers indicated they were angry because they were "caught off guard" and not given proper notice that they were going to be accompanied by an observer. Patrol officers also confronted their supervisors (either in private or in front of the observer) in order to get the observer switched to another officer.

The qualitative data also revealed that patrol officers would change their behavior by: (1) complaining to others about the observer; (2) rearranging their break schedule or rescheduling errands; or (3) intentionally taking days off when observers were scheduled to ride with them. However, since patrol officer's attitudes toward the observer also became more positive as the shift progressed (see Table 6.35),[32] the overall effects of outbursts of anger on patrol officer behavior appear to be negligible.

Finally, although observers were instructed to document the motivations behind patrol officer anger, observers could not identify the source of patrol officer anger toward observers. However, the field research literature suggests that outbursts of anger are

indicative of a lack of trust and a feeling of vulnerability by patrol officers who are suspicious of citizens in general.

Patrol officer is concerned about safety

At the beginning of the ride, observers were instructed to inform the patrol officer that they went anywhere the patrol officer goes unless the patrol officer believes that the given situation is too dangerous. Observers told officers they were to accompany the officer wherever s/he went unless told otherwise. However, the overarching goal was to observe and document patrol officer behavior without jeopardizing the safety of the officer or the observer.

Table 6.5 shows percent of rides where the patrol officer indicated s/he was concerned about safety. Row one of Table 6.5 shows the most general measure of patrol officer's concerns about safety (*safety – all cases*). During 8.5% of rides, patrol officers expressed concerns about the safety of the observer. Observers documented these concerns when making an overall assessment for reactivity for the entire ride ("ride form reactivity"), within specific events within a ride ("activities and encounters with reactivity"), and during encounters with citizens in 5.2%, 4.4%, and 1.9% of rides respectively.

Table 6.6 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer indicated they were concerned about safety. Patrol officers were more likely to express concerns about safety during encounters with citizens (.2% of both encounters and officer initiated encounters) compared to .1% of all events and officer initiated events. This makes intuitive sense since citizens have the potential to turn violent at unpredictable intervals during encounters.

While the frequency counts in Table 6.5 and 6.6 specify how often patrol officers express concerns about safety, the descriptive "raw" data give concrete examples of manifestations of concerns about safety by patrol officers. Patrol officers concerned about safety laid down "ground rules" for involving potentially dangerous situations. These officers stressed that their primary goal was to keep the observer safe and they did not want to worry about another person when involved in a potentially perilous situation. Usually, these officers gave the observer a spare set of keys to the cruiser and told them to return to the cruiser immediately when commanded to do so. Other officers were more specific and prohibited observers from leaving the cruiser for traffic stops, foot chases, or dispatched calls for armed robberies, burglary alarms, or shots fired. A number of officers stated they felt more comfortable about having an observer if they carried a gun. Others showed the observer how to use the radio and where they kept their spare gun "just in case." At the same time, these officers also asked the observer to jump right in if the officer was "getting his ass kicked" by some suspect over the course of the shift.

Concerns about safety and patrol officer behavior

Patrol officers attempted to protect or shield observers from dangerous or unpredictable situations. In Table 6.5, observers documented this phenomenon in their overall assessment of reactivity for the entire ride, during all events within a ride, and during encounters with citizens in .3%, 1.8%, and .8% of rides respectively.

Table 6.6 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer indicated they were concerned about safety. Patrol officers expressed concerns about safety in .1% of all activities and encounters and .1% of officer initiated activities and encounters. However, for reasons discussed above,

patrol officers were more likely to express concerns about safety during encounters with citizens (.2% of encounters and .2% of officer initiated encounters). By cross-referencing Table 6.5 and 6.6, there are 40 activities and encounters (see Column one of Table 6.6) scattered over 32 rides (see column three of Table 6.5) where officers express concerns about safety. Patrol officers also express concerns about safety during 14 encounters evenly spread over 14 rides.

While the frequency counts in Table 6.5 and 6.6 specify how often patrol officers express concerns about safety, the descriptive "raw" data supplement these frequency counts by specifying concrete examples of how officers attempt to shield observers from danger. More specifically, during one dispatched call regarding an argument between two female roommates, the patrol officer saw the victim leaning on a wall and holding a towel against her chest. Her shirt and shorts were covered with blood. The officer asked the observer to stay in the car until told otherwise. In another case, seven officers were dispatched to control a crowd in a lower class neighborhood. The officer told the observer that he was not allowed to go with him if the officer had to approach the crowd. Another officer (fearing that the suspect might become violent) asked the observer to step away from a suspect when he came back positive for warrants. On another ride, officers asked the observer to stand behind him (and his partner) when struggling with a very belligerent, mentally ill man who was subdued with force and pepper sprayed. The suspect kept reaching into his back pocket while being subdued. One officer pulled a small switchblade from his pocket and threw it across the room while struggling with the suspect.

Patrol officers also asked the observer to wait in the car when searching a house

for a murder suspect, when serving an arrest warrant, when searching a building for a burglary in progress or if the call involved shots fired. In Table 6.5, observers documented that they were asked to wait in the car in "ride form reactivity", during specific events within a ride, and during encounters for 1.6%, 1.5%, and .8% of rides respectively. Table 6.6 shows that observers were more likely to be shielded from danger during encounters with citizens (.1% of encounters and .1% of officer initiated encounters) as opposed to all events which occurred during the ride (less than .1% of all activities and encounters and less than .1% of officer initiated activities and encounters). The most common reason why observers were asked to stay in the car (and out of harms way) occurred during traffic stops. Patrol officers felt these were very unpredictable situations and did not want to have to worry about the safety of the observer while looking for signs of danger.

Overview of findings: patrol officer concerned about safety

Even though patrol officers were concerned about the safety of the observer for 8.5% of rides, these concerns had relatively little impact on their behavior.[33] In the examples discussed above, the only change in officer behavior was either a hand signal to tell an observer to stay put or an order to stay in the car while the officer responded to some potentially dangerous situation. However, observers were often not able to see or hear what was going on during these instances. Therefore, it is possible that concerns about safety have limited our understanding of officer and citizen behavior in potentially dangerous encounters with citizens.

Patrol officer is at ease with the presence of an observer

The previous sections have discussed three social cues that observers documented

within qualitative data related to reactivity. Patrol officers have shown signs of mistrust and self-consciousness, outbursts of fury and anger, and a heightened sensitivity to danger which has led to concerns about observer (and officer) safety. The common theme that links self-consciousness, patrol officer anger, and concerns about safety is a lack of trust between the patrol officer and observer. Patrol officers feel uncomfortable with the presence of an observer because they fear that observers will condemn, betray, or endanger them as they carry out their work.

However, the most common theme within the qualitative data is that patrol officers showed signs of being "at ease" or comfortable with the presence of an observer. Table 6.7 lists the percent of rides where officers indicate they are at ease with the presence of the observer. Patrol officers indicated they were at ease with observers during 42.4% of rides. A more detailed breakdown of the sources of qualitative data revealed that observers documented that patrol officers were at ease with their presence when making an overall assessment of reactivity for the entire ride ("ride form reactivity"), during events within a ride, and during encounters with citizens during 40.5%, 3.3%, and 1.4% of rides respectively.[34]

Table 6.8 gives a more detailed breakdown of the frequency of the events (activities and encounters) where an officer indicated they were at ease with the presence of an observer. Patrol officers are more likely to express that they are at ease with observers when acting on their own initiative (.2% of officer initiated activities and encounters and .2% for officer initiated encounters) or during encounters (.2% for all encounters) compared to all events which occur during a ride (.1% of all activities and encounters). By cross-referencing Table 6.7 and 6.8, officers indicate they are at ease

during 49 activities and encounters over 24 rides (or over 2 times per ride on average). Similarly, patrol officers act at ease during 14 encounters scattered over 10 rides.

While the frequency counts in Table 6.7 and 6.8 specify how often patrol officers act at ease with observers, the descriptive "raw" data supplement these frequency counts by specifying concrete examples of how officers give the impression that they are at ease with the presence of the observer. There are a number of behavioral indicators which suggest that patrol officers are extremely relaxed (and even happy) with having an observer over the course of a shift. First, patrol officers were extremely friendly to the observers. In Table 6.7, observers documented that patrol officers were friendly toward them in 65 out of 729 rides (8.9% of rides) when making an overall assessment of reactivity for the entire ride ("ride form reactivity"). Officers invited observers to have a drink with them after work or go work out with them in the gym at the police station.[35] One officer gave the observer a copy of her schedule so the observer could ride with her again on another night. Another officer gave the observer a police badge patch from one of his old uniforms after he said he enjoyed having him along. When a different officer found out that an observer was married and away from his wife, he asked the observer if he wanted to be "set up" with a local woman called "Trouble." Trouble was an admittedly unattractive woman who "had a thing for cops." She hung out at a local bar and frequently had sex with patrol officers either one at a time or in bunches.

Second, officers shared their personal problems with observers. In Table 6.7, observers documented that patrol officers shared personal problems within "ride form reactivity" during 3.2% of rides. One officer spent the shift venting to the observer about the emotional and legal problems he was having with both of his ex-wives. Another

officer spent half of the shift telling the observer about his personal life and describing the hardships he had faced being a black officer in a predominantly white department. A different observer and an officer had a long and serious talk about a personal family matter throughout the ride. By the end of another ride, the patrol officer was showing the observer pictures of his family.

Third, other officers were eager to share their complaints about citizens on their beat, fellow patrol officers, their supervisors, or higher level police administration. Observers documented in "ride form reactivity" that patrol officers made negative comments about other patrol officers or citizens during 3.7% of rides (see Table 6.7). Officers discussed the reasons why they do not get along with certain other officers or supervisors. One officer expressed his disgust at community policing officers who he described as "useless." Another gave a lengthy and detailed explanation for why he left narcotics. This officer had a problem with one of the officers in the unit and the sergeant was unwilling to do anything about it. He resented the fact that he produced more arrests than anyone else in the unit while everyone else took two hour lunch breaks. He was also going home frustrated every night and taking it out on his family.

Patrol officer criticism and/or complaints about police management was documented within "ride form reactivity" for 7.1% of rides (see Table 6.7). One officer said that he loved his work, but discouraged the observer from entering law enforcement since many of his superiors are not well educated and resent those who are. Another officer was clearly upset and spent the shift telling the observer about the morale and administrative problems in his district. Other officers were "disgusted" about the department's "no pursuit" policy and also felt that community policing was being

implemented improperly since 911 officers were forced to respond to a greater number of "bullshit" calls. A third officer criticized the chief about considering going back to rotating shifts and his changing rationale for doing so. Another officer was very upset about the department's decision to fire a patrol officer while a different officer was upset about the administration's decision to "kow-tow to the black citizens of the city" instead of allowing police officers to do their jobs.

Fourth, some patrol officers were completely comfortable running errands and taking long breaks while accompanied by an observer.[36] Patrol officers were at ease taking breaks and running errands as documented within "ride form reactivity", all activities and encounters (or all events during a ride), and all encounters during 3.8%, .5% and .1% of rides respectively (see Table 6.7). Table 6.8 shows that patrol officer acted at ease with breaks and errands during less than .1% of all activities and encounters, officer initiated encounters, all encounters, and officer initiated encounters. By cross-referencing Table 6.7 and 6.8, officers indicate they are at ease taking breaks and running errands during 11 activities and encounters scattered over 4 rides. So, these officers feel comfortable taking multiple breaks and/or running multiple errands during a shift (about 2.5 per shift). Similarly, patrol officers act at ease taking breaks and running errands during 3 encounters scattered over a single ride.

While the frequency counts in Table 6.7 and 6.8 specify how frequently patrol officers act at ease taking breaks and running errands with observers, the descriptive "raw" data supplement these frequency counts by specifying concrete examples of this phenomenon. More specifically, one officer met with another several times over the course of a shift in order to conduct personal business. These officers did not give

defensive explanations for their actions. They acted like it was totally normal and were comfortable doing it in front of observers. Other officers took long breaks of more than an hour several times during the shift, met with other officers for meal breaks at their usual spots, or ran errands during the slow times of the ride. One officer spent a lot of time on the phone talking with friends. Another officer who just took the sergeant's exam and also met an officer for coffee to talk about the interview. This officer did not put on a business-like air and cut personal calls or break time short just because she had a rider. Another officer explained that he was spending a lot of time in the fire station since he was working 80 hours a week in order to get a down payment together for his house.[37] A different (married) officer even took his regular coffee break at his girlfriend's house while accompanied by an observer.

Fifth, patrol officers felt very comfortable about explaining the thought processes behind their decision-making. More specifically, observers were instructed to debrief patrol officers about their thought processes and/or other factors that influenced their decisions during certain situations (e.g., interactions with rebellious or uncooperative citizens) over the course of a shift in order to develop a deeper understanding about more cognitive motives and motivations which drive patrol officer behavior. Observers were instructed to probe patrol officers immediately following these events within the context of a casual conversation as opposed to conducting a formal, structured interview. Some officers reacted very defensively and worried that observers were trying to evaluate their performance in some way. However, patrol officers were very comfortable with giving observers very detailed descriptions about the thought processes and other factors that influenced their decisions during 19.3% of rides (see Table 6.7). Patrol officers became

so comfortable with observers and these types of questions that they debriefed themselves without being prompted by the observer by the end of the shift. Most officers were very conversational. As a result, conversation about debriefing merged very smoothly with other conversations about other police work related topics that patrol officers had with observers over the course of a shift.

Sixth, some patrol officers were comfortable talking about or engaging in improper police behavior. Observers documented improper police behavior (or what I call the dark side of policing) within "ride form reactivity", all events during a shift, and all encounters during 4.0%, 2.5%, and 1.2% of rides respectively (see Table 6.7). Table 6.8 gives a more detailed breakdown of the frequency of the events (activities and encounters) where observers document the dark side of policing. Patrol officers were more likely to expose observers to the dark side of policing voluntarily, when engaged in police work *on their own initiative* (.2% of officer initiated activities and encounters and .2% of officer initiated encounters) compared to other events (.1% of all activities and encounters and .1% of all encounters). By cross-referencing Table 6.7 and 6.8, officers engage in or discuss improper police behavior during 35 activities and encounters scattered over 18 rides. So, these officers exposed observers to about two incidents of improper police behavior per shift on average. Similarly, observers documented the dark side of policing within 11 encounters scattered over 9 rides.

The frequency counts in Table 6.7 and 6.8 specify how frequently observers documented the dark side of policing. However, the descriptive "raw" data supplement these frequency counts by specifying concrete examples of this phenomenon. More specifically, patrol officers made racist remarks and expressed racial prejudice in front of

observers. One officer felt it was becoming a "black person's world" because they were "overbreeding." This officer also made derogatory remarks about how Mexicans are dirty, disgusting, and worse than blacks. As I stated above, one sergeant stated, "he never heard of a good looking nigger." A different patrol officer admitted to racial profiling when he said that the only reason why he pulled over a truck was because there were two white males in a predominantly black neighborhood.

Patrol officers also discussed their sex lives in detail. One married officer changed plans he had with his girlfriend during the ride and was very open about it. The officer felt that the nature of the profession fostered a lack of commitment. Another officer admitted he had been with his mistress the night before, spending a significant amount of time "engaged in a rather obscene activity." A different officer worked security in a bar to earn extra money. This officer talked about which patrons of the bar were either good or bad in bed, which were fat, and which had funny looking vaginas. On the same ride, the patrol officer and two friends spent a long break talking about conservative politics and cheating on their wives. His friend complained about how disgusting it was to get "sloppy sevenths" on some fat woman a group of officers shared during some of their drunken parties. On two separate occasions, a group of officers offered to set up the observer with "Trouble." "Trouble" was really into cops, hung out at a local bar, and the officers "shared" her during some "parties" they had.

On a similar note, another married officer described in detail a sexual encounter he had with a citizen at a bar where he worked when off-duty. The woman bought him a beer, invited him back to her house, and they had sex, but started crying and acting mentally unbalanced when he told her he was married. The woman followed the patrol

officer when he left the bar one night so the officer ended it, but he did say "she had a fantastic body."

Officers engaged in improper behavior which ranged from juvenile pranks to illegal behavior. For example, one officer described how a group of officers illegally confiscated sexually explicit homemade tapes of a couple having sex while serving search warrants. This group of officers made numerous copies and circulated them throughout the department. Two officers[38] harassed a group of lethargic drug users in a crack house by sarcastically chanting community policing slogans "JUST SAY NO!", "HUGS NOT DRUGS!", and "DOWN WITH HOPE! UP WITH DOPE!" Whenever the suspects complained, the officers told them "they were just doing community policing." The officers were about to turn a garden hose on a drug user, but did not because they didn't want to put the observer in a position to have to testify about it. The two officers said if the observer was not there, they would get the canine unit out of the cruiser and have him "bark at the dopers." Some officers took pleasure in giving observers a "local tour of the strip clubs." One observer saw an MDT[39] message that encouraged O1 "...to go to the club and check out some gash." One group of officers had a stripper who "was missing teeth, had a shaved head, and reeked of body odor" do a lap dance on the observer while they tried to snap a picture as a practical joke. The stripper bent over in front of the observer and, after a few seconds, said he missed an opportunity to "slap" her ass. The three officers took turns slapping her ass before she finished her set and left the stage. During the same ride (but at another strip club) one officer threw dollar bills on the observer's head and lap. The three officers in attendance laughed while the dancers tried to grab the money. It was evident that another officer spent a lot of time in a strip club

when he spent an hour talking to the manager and the girls who worked there.

Finally, one officer planted evidence in full view of the observer while dropping off confiscated drugs at the property room. The officer opened a pocket on the right side of his uniform, removed a clear sandwich bag with about an inch of marijuana in it, and placed it in the evidence bag. The observer was standing right beside the officer when he did this while the officer was watching and studying the observer's facial expressions very intensely. The officer spent the rest of the ride talking about the incident, pushing the observer to see if he would talk about what he had seen, and watching the observer for some type of reaction. He said, "I arrested the guy for possession of marijuana and cocaine. He didn't have much marijuana on him. He was arrested previously for marijuana but not charged. And the cocaine will probably get him more than the pot." The observer empathized with the officer and remained neutral about the entire incident.

Patrol officers who are "at ease" with observers and patrol officer behavior

Most patrol officers were very comfortable with the presence of observers. They acted very friendly, shared their personal problems, complained about fellow officers and police administration, ran errands, took pleasure in explaining their behavior to observers, discussed their sex lives in explicit detail, or engaged in improper police behavior. The linkage between seemingly innocuous gestures of friendliness by patrol officers and corresponding changes in officer behavior were not found within POPN descriptive data. However, Van Maanen (1982, 1983b) described how officers who were comfortable with him were eager to demonstrate "real" police work. Patrol officers showed off for his benefit to demonstrate exciting aspects of police work. Specific examples included

pushing around informants, verbally and physically assaulting a ten year old boy who gave the patrol officer the finger, and the brutal beating of a defiant suspect who refused to go home after causing a disturbance at a bar.

Overview of findings: patrol officer is at ease

The most common theme within the qualitative data was that patrol officers were at ease with the presence of the observer (see Table 6.36). Patrol officers indicated they were at ease with observers during 42.4% of rides. Surprisingly, observers documented that patrol officers were at ease with their presence in 40.5% of rides when making a ride-long assessment of *reactivity* over the course of the shift.

When I first began the qualitative analysis, I categorized indications that a patrol officer was *at ease* as a factor that mitigated against reactivity since the field research literature suggests that establishing rapport and setting research subjects *at ease* is a major hurdle during the early stages of field research. These researchers suggest that reactivity is triggered and/or exacerbated by suspicion and paranoia about strangers. The sooner the observer can develop a relationship with patrol officers, the lower the level of reactivity.

However, Van Maanen (1982, 1983b) described how officers who were most comfortable with him were eager to demonstrate "real" police work. Patrol officers showed off for his benefit to demonstrate exciting aspects of police work. Although there were no straightforward linkages between seemingly innocuous gestures of friendliness by patrol officers and corresponding changes in officer behavior, POPN qualitative data reveal that the most common reason why patrol officers become more proactive is because they are showing off for the benefit of observers (see Table 6.14).

Observers cause reactivity

The previous four sections have focused on how *patrol officers* give indications (e.g., self-consciousness, expressions of anger, concerns about safety, and feeling 'at ease' with the presence of the observer) that they are either comfortable or uncomfortable with the presence of an observer and, ultimately, changing their behavior. While patrol officers can react to the presence of an observer in a number of ways, the purpose of this section is to focus on how *observers* (either through their behavior or merely due to their presence) can act as a catalyst and affect the behavior of patrol officers.

The presence of an observer can change the dynamic of police or citizen interactions. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) for the most general measure of observers changing the dynamics of police-citizen exchanges (*change dynamic – all cases*). Table 6.9 shows that observers changed the dynamic of police-citizen exchanges during 7.5% of rides. Observers documented that they changed the dynamics of police-citizen interactions within "ride form reactivity", all activities and encounters, and all encounters during 2.3%, 6.2%, and 3.5% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Not surprisingly, observers are more likely to change the dynamics of patrol officer and citizen behavior during encounters with citizens (.4% of all encounters and .3% of officer initiated encounters) compared to other events over the course of a ride. By cross-referencing Table 6.9 and 6.10, observers changed the dynamic of police or citizen behavior during 66 activities and encounters scattered over 45 rides (or on average of about 1.5 times per ride). Similarly, observers changed the dynamic of

police-citizen encounters during 31 encounters scattered over 25 rides.

Citizens ask about the presence of an observer

The frequency counts in Table 6.9 and 6.10 specify how frequently observers changed the dynamics of police or citizen interactions. However, Table 6.9 and 6.10 also provide frequency distributions for two manifestations of "change dynamic" within POPN qualitative data: citizens asked about the presence of the observer and observers as distractions. More specifically, citizens would ask either the patrol officer or the observer directly who the observer was and what they were doing there during encounters with citizens. When making an overall assessment of reactivity during the entire ride ("ride form reactivity"), during events within a ride, or during encounters, citizens asked about the presence of observers in 1.0%, 3.6%, and 2.9% of rides respectively (see Table 6.9).

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Not surprisingly, observers are more likely to change the dynamics of patrol officer and citizen behavior during encounters with citizens (.3% of all encounters and .2% of officer initiated encounters) compared to other events over the course of a ride. By cross-referencing Table 6.9 and 6.10, observers changed the dynamic of police or citizen behavior during 31 activities and encounters scattered over 26 rides. Similarly, observers changed the dynamic of police-citizen encounters during 26 encounters scattered over 21 rides.

The descriptive "raw" data supplement these frequency counts by specifying concrete examples of how observers become the focal point during encounters with citizens. More specifically, citizens asked officers if the observer was a police officer. One observer was mistaken as a female officer responding to a domestic disturbance. In

other cases, participants in encounters mistook the observer for someone else. One church employee asked if the observer worked for the police department while the officer was taking a report for a burglary from the church. The citizen was worried that the observer worked for the press and would write a story about the break in. During another ride, a visibly drunk suspect asked the two arresting officers to buy him a pint. When they refused, the suspect's eyes came into focus and he said the observer had bought him a pint of wine before. The father of a burglary suspect insisted that he knew the observer. The man said he had not met the observer before, but others had described the observer's height and build to a tee. The observer was "old ponytail" who was well known in the neighborhood.

One intoxicated citizen thought the observer was the officer's wife. When the patrol officer said no, the suspect asked if he could flirt with her for a while. The officer said, "Man, this is my supervisor. I can't let you talk to her like that." As the observer was getting into the car, the suspect held the door open for her and told her to have a good night. After shutting the door, he looked at the officer and said, "See, I'll help you out. Now you'll get promoted to sergeant!"

Usually, the patrol officer briefly explained that the observer was part of a project and not a law enforcement officer. Any cases of mistaken identity or questions that citizens had about the presence of an observer were usually very innocuous and quickly cleared up with two exceptions. In the middle of a domestic dispute, the female disputant focused her attention on the observer. She asked in a very nasty tone, "Who are you? Are you a police officer?" The observer politely told her no and asked her to direct her questions to the officers. One officer explained that the observer "was with us." The

woman then became very agitated and she screamed, "This is my house and I don't want some white bitch in here." The woman then began to approach the observer. The officer under observation was standing across the room from the observer and told her to stay. Since the observer could see that her presence was influencing the behavior of the female disputant, she said she would wait outside. When the observer moved toward the door, the female disputant put her hand up as though to push the observer out the door (though she didn't) and then slammed the door in the observer's face. Through the door, you could hear the woman talking about "that fucking white bitch" and that she didn't want "no fucking white people in her house."[40]

In a different domestic dispute call, the ex-husband thought the observer was his ex-wife's boyfriend. Two officers on the scene asked the man to go home because he was upsetting the children, but he kept hanging around just off the property. The man glared at the observer throughout this encounter since he thought the car parked in the driveway belonged to the observer. When the two officers stepped away from him, this man got very close to the observer and asked him aggressively, "So what's it like having your meals cooked for you, and spending the night with Z (his wife)." The two officers loudly and quickly interrupted him saying that the observer was with them. The suspect apologized and backed off.

Observers distract patrol officers[41]

A second way that observers could affect patrol officer behavior is by being a distraction. Table 6.9 shows that observers distracted patrol officers within "ride form reactivity", during events within a ride, or during encounters within a ride in 1.5%, 3.0%, and .5% of rides respectively. Table 6.10 gives a more detailed breakdown of the

frequency of these events (activities and encounters). Observers are more likely to distract patrol officers during officer initiated activities and encounters (.2% of officer initiated activities and encounters) compared to the percent of all activities and encounters, all encounters, and officer initiated encounters (.1%, .1%, and .1% respectively). By cross-referencing Table 6.9 and 6.10, observers distracted officers during 36 activities and encounters scattered over 22 rides (or about 1.6 times per ride on average). Similarly, observers distracted officers during 5 encounters scattered over 4 rides.

The descriptive "raw" data supplement the frequency counts in Table 6.9 and 6.10 by providing concrete examples of how observers distracted patrol officers. One officer got so into a conversation that he was having with the observer that he forgot to check around for suspicious looking people and vehicles. The officer said he was normally very proactive, but tonight he had not been because the observer was present. During another ride, an observer reminded the patrol officer about a rape that he needed to investigate. The patrol officer was thankful for the reminder and spent some time figuring out whether the rape occurred in his beat or not as a result of the observer's off-hand comment.

Sometimes patrol officers also stopped doing whatever they were doing and talked to observers excessively during encounters or whenever the opportunity arose. During one ride, the officer took time discussing his concept of police professionalism with the observer whenever the opportunity arose. On a separate occasion, the officer and a security person spent a significant amount of time explaining a case of trespassing and a joint project focused on cleaning up the housing area to the observer.

Another officer took the observer to the station because the observer needed to take a restroom break before proceeding to a dispatched call for service. A very friendly and accommodating officer took an observer to a shopping center to look at model sized police cars when the observer expressed some interest in them.[42] On a similar note, an officer spent his time giving the observer a "tour" of beautiful homes in or near her beat. A different officer stopped a number of times to show the observer a lake that had a number of alligators in it. On a separate occasion, a second officer met up with the observer and his officer in order to show the observer pictures of a homeless man who was set on fire. Another officer met up with the observer in order to show him (and fire) his "potato gun."

At times, the presence of observers was also a lightning rod for practical jokes or just plain juvenile behavior. A group of officers spent an entire ride sending another officer (who also had an observer) messages about his drinking problem as a practical joke. It became a contest of sorts where each officer tried to send more and more outrageous messages about his attendance at AA meetings, the size of his bar tab, or how the liquor store was asking about when he will make good. On a similar note, an officer (as a joke) told a suspect to ask the observer to loosen his cuffs. When the observer did not answer the suspect, the officer told the suspect that the observer was really a lawyer. The observer shook his head and went to get into the cruiser, but the suspect kept whispering, "Psst, Mrs. Lawyer. Psst, Mrs. Lawyer. You see this I didn't get no Miranda, no nothing. Psst, come here, I need a lawyer."

Another observer felt uncomfortable because a citizen under arrest was leering at her and obviously "undressing her with his eyes." The suspect continued to stare at the

observer and said she "had beautiful eyes and long, lustrous hair and...they would meet again and someday she would be his." The officer under observation said "no, you can't have her. She's Jesse's girl" (Jesse was the name of another citizen arrested in this encounter). At this point, all three officers broke into a weak rendition of the Rick Springfield song "Jesse's Girl" and (much to the amusement of the observer) started dancing around and shaking the love struck suspect's shoulder to the beat of the music.

A more serious form of practical joke occurred when the officer under observation (O1) told the observer that a suspect was his prisoner and the observer needed to handcuff him. The observer insisted that he would not do it because he would get fired. Two other officers who were present started pestering the observer, telling him that no one would know and to go ahead and handcuff the suspect. The observer continued to insist he was not going to do it while the officers kept insisting that he do it. The suspect walked up to O1 with his hands behind his back, but O1 told the suspect that "the detective" would do it. The officers continued to insist so the observer finally handcuffed the citizen to get the officers to shut up.[43]

Similarly, patrol officers forced observers to decide whether or not to arrest a citizen as a practical joke on several occasions. The suspects were lower class males who were intoxicated while in public, but harmless and the officers took pleasure in putting observer on the spot and forcing them to make a decision. Observers were very uncomfortable with the situation, invariably angry with the officer for doing this to them, and tried on numerous occasions to convince the officer that s/he could not do that. Invariably, the observer just told the suspect that they were not under arrest.

Observers help patrol officers

Table 6.9 through 6.13 shows a detailed breakdown of the qualitative coding on observers helping patrol officers. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.11 to 6.13) for the most general measure of observers helping patrol officers (*observers help patrol officers – all cases*). Observers helped patrol officers in some manner during 10.7% of rides. Observers documented that they helped patrol officers within "ride form reactivity", during events within a ride, or during encounters within a ride in 1.9%, 10.0%, and 6.7% of rides respectively. Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Observers are more than two times more likely to help patrol officers during encounters (.8% of encounter) and officer initiated encounters (.9% of officer initiated encounters) compared to all activities and encounters (.3% of all events) and officer initiated activities and encounters (.4% of officer initiated encounters). By cross-referencing Table 6.9 and 6.10, observers helped patrol officers during 119 activities and encounters scattered over 77 rides (or about 1.5 times per ride on average). Similarly, observers helped patrol officers during 63 encounters scattered over 49 rides (or about 1.5 times per ride).

The frequency counts in Table 6.9 and 6.10 are dichotomous coding of the *ride* or the *event* where an observer helps a patrol officer. However, Table 6.9 and 6.10 do not indicate how much *time* per ride or per event observers help patrol officers.[44] Table 6.11, 6.12, and 6.13 provide this piece of information: the amount of time an observer helps a patrol officer per shift, per event, and per encounter respectively.

Table 6.11[45] shows that, for the 73 rides where an observer helped a patrol officer

during *all* events within a ride (all activities and encounters), the observer spent on average 47.4 minutes helping the patrol officer over the course of a shift. Observers spent even more time (48.3 minutes per ride on average) helping patrol officers during the 49 rides when observers help patrol officers during encounters with citizens.

Table 6.12[46] looks at the data from a different perspective: the amount of time per *event*. Observers spend more time helping patrol officers during all activities and encounters (29.1 minutes per event on average) compared to officer initiated activities and encounters (27.7 minutes per event on average). Table 6.13[47] shows the amount of time per *encounter* where an observer helps a patrol officer. Observers spend slightly more time helping during all encounters (37.5 minutes per encounter on average) compared to officer initiated encounters (36.4 minutes per encounter on average).

Observers are treated like partners

Tables 6.9 through 6.13 also provide a more detailed breakdown of manifestations of how observers help patrol officers. More specifically, patrol officers treated observers like partners. During 4 out of 729 rides, observers recorded comments which suggested that patrol officers viewed observers as partners (see Table 6.9). One officer said he treated observers as if they were "probationary officers without police powers." Another observer felt that the officer viewed him more as a partner than an observer. On one call, the officer handed the observer his "billy club" and said, "you may need it."

Observers help patrol officers with police work

As a result, observers helped patrol officers with police work over the course of a shift. Tables 6.9 through 6.13 show a detailed breakdown of the qualitative coding on observers helping patrol officers. The purpose of this section is to discuss the frequency

distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.11 to 6.13) for how often observers helped patrol officers with police work.

In Table 6.9, observers documented that they helped patrol officers within "ride form reactivity", during events within a ride, or during encounters within a ride in 1.2%, 8.1%, and 4.7% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Observers are about two times more likely to help patrol officers during encounters with citizens (.6% of encounter) and officer initiated encounters (.6% of officer initiated encounters) compared to all activities and encounters (.3% of all events) and officer initiated activities and encounters (.4% of officer initiated encounters). By cross-referencing Table 6.9 and 6.10, observers helped patrol officers with police work during 99 activities and encounters scattered over 59 rides (or about 1.7 times per ride on average). Similarly, observers helped patrol officers during 43 encounters scattered over 34 rides (or about 1.3 times per ride).

As noted above, Table 6.11, 6.12, and 6.13 list the amount of time an observer helps a patrol officer per ride, per event, and per encounter respectively. Table 6.11[48] shows that, for the 59 rides where an observer helps a patrol officer during *all* events within a ride (all activities and encounters), the observer is spending on average 54.1 minutes helping the patrol officer over the course of a shift. Observers are spending slightly less time (52.9 minutes per ride on average) helping patrol officers during the 34 rides when observers help patrol officers during encounters with citizens.

Table 6.12[49] looks at the data from a different perspective: the amount of time per *event*. Observers spend more time helping patrol officers during all activities and

encounters (32.2 minutes per event on average) compared to officer initiated activities and encounters (29.8 minutes per event on average). Table 6.13[50] shows the amount of time per *encounter* where an observer helps a patrol officer. Observers spend slightly more time helping during all encounters (41.8 minutes per encounter on average) compared to officer initiated encounters (40.0 minutes per encounter on average).

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.9 through 6.13 by providing concrete examples of how observers helped patrol officers with police work. More specifically, observers helped patrol officers in a number of different ways. First, observers acted as an extra set of eyes, ears, and hands[51] for patrol officers. Although the observer initially refused to do so, an observer helped his patrol officer to watch one street while he was watching another while setting up a perimeter watch in an effort to spot a robbery suspect somewhere in the area. Another observer grudgingly accepted a request by the patrol officer (who was dealing with a domestic dispute) to stay on the District channel to hear when backup was arriving so the observer could respond and tell them to come to the proper location.

Observers also helped patrol officers by: (1) telling an officer if he left his emergency lights on when unloading his equipment at the end of the shift; (2) walking two blocks to get gas after the patrol officer's car ran out of gas; (3) helping the officer with a computer problem; (4) pushing vehicles involved in an accident out of an intersection; (5) moving concrete blocks and hubcaps in the middle of an intersection following an accident; (6) taking down addresses, vehicle identification numbers, or license plate numbers; (7) holding handcuffs; (8) filling out paperwork for an officer who suffered a hand injury; (9) moving furniture or office equipment; (10) directing traffic;

(11) putting up yellow tape around the perimeter of a crime scene; (12) fetching paperwork from the cruiser; (13) driving the cruiser a short distance; (14) placing knives in the trunk of the cruiser being careful not to touch the blades when dispatched to a fight in progress; (15) "covering" an officer by making sure no one was sticking a gun out of the window of a two story, run-down house; (16) sprinkling powder on a pile of vomit; (17) recounting money confiscated in a drug bust in order to ensure an accurate count; and (18) sealing an evidence bag that contained crack cocaine when asked.

Observer helps officer deal with citizens

Second, observers helped patrol officers deal with citizens during encounters. Tables 6.9 through 6.13 shows a detailed breakdown of the qualitative coding on observers helping patrol officers. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.13) for how often observers dealt with citizens. In Table 6.9, observers documented that they dealt with citizens during events within a ride or during encounters within a ride in 1.0%, and 1.0% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Not surprisingly, observers are more likely to deal with citizens during encounters (.1% of all encounters and officer initiated encounters) given that, by definition, citizens are always present during encounters.[52] Cross-referencing Table 6.9 and 6.10 shows that observers dealt with citizens during 7 encounters evenly distributed over 7 rides.

Table 6.13[53] shows the amount of time per *encounter* where an observer helps a patrol officer. Observers spend more time helping during all encounters (12.7 minutes

per encounter on average) compared to officer initiated encounters (7.3 minutes per encounter on average).

The descriptive "raw" data supplement the frequency counts and descriptive statistics and provide concrete examples of how observers helped patrol officers with citizens. More specifically, one observer wrote down names and addresses in a field identification report because the patrol officer was extremely busy.[54] A different observer was commanded to take down information from a complainant who was concerned about a homeless trespasser on her property while the officer spoke with the suspect. During another ride, the observer (who could speak a foreign language) translated for the patrol officer when they encountered two drunken Hispanic males who could not speak English.

Observer gives patrol officer advice

Third, patrol officers asked for the observer's advice. Tables 6.9 through 6.13 show a detailed breakdown of the qualitative coding on observers helping patrol officers. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.11 to 6.13) for how often observers gave patrol officers advice. In Table 6.9, observers documented that they gave advice within "ride form reactivity", during events within a ride, or during encounters within a ride in .1%, 1.9%, and 1.0% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Observers are more likely to give advice during encounters with citizens (.1% of encounters) and officer initiated encounters (.1% of officer initiated encounters) compared to all activities and encounters (less than .1% of all events) and officer initiated activities and encounters (less than .1% of officer initiated encounters).

By cross-referencing Table 6.9 and 6.10, observers gave advice to patrol officers during 15 activities and encounters scattered over 14 rides. Similarly, observers helped patrol officers during 7 encounters evenly spread over 7 rides.

As noted above, Tables 6.11, 6.12, and 6.13 list the amount of time an observer helps a patrol officer per ride, per event, and per encounter respectively. Table 6.11[55] shows that, for the 14 rides where an observer helps a patrol officer during *all* events within a ride (all activities and encounters), the observer is spending on average 13.5 minutes giving advice per shift. Observers are spending more time (19.5 minutes per ride on average) giving advice during encounters with citizens.

Table 6.12[56] looks at the data from a different perspective: the amount of time per *event*. Observers spend less time giving patrol officers advice during all activities and encounters (12.6 minutes on average) compared to officer initiated activities and encounters (13.4 minutes on average). Table 6.13[57] shows the amount of time per *encounter* where an observer helps a patrol officer. Observers spend less time giving advice during all encounters (19.5 minutes per encounter on average) compared to officer initiated encounters (26.3 minutes per encounter on average).

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.9 through 6.13 by providing concrete examples of how observers give advice to patrol officers with police work. More specifically, one officer asked the observer if he could think of a reason to stop a van that had stopped in front of a known drug dealer's house. The officer asked the observer if he should give a driver a ticket. The observer said, "I can't tell you because that would change the data." The officer looked like he really wanted the observer's opinion so he asked again. The observer told

the officer to do whatever he would do if the observer was not present so the officer ticketed the driver. In another case, two patrol officers and a sergeant were discussing whether or not an extremely intoxicated juvenile who was drifting in and out of consciousness needed to see a paramedic. The observer volunteered that, although he had no medical training, the juvenile "might be going into an alcohol-induced coma." As a result, the sergeant instructed O1 to call for an EMS unit to check the boy out. At a different time, the officer asked the observer what the driver (a warrant suspect she was trying to apprehend) and passenger looked like and to recall the type of car the suspects were driving.

Similarly, one observer who accompanied two officers in search of drugs in a motel room felt obligated to inform patrol officers when he observed a citizen casually swipe a piece of crack off of the top of a television set. At first, the observer just noticed the citizen knocked something off the top of the television. Without thinking the observer picked up the object off of the floor and noticed it was crack cocaine. When the observer looked up, she noticed that both suspects noticed her picking up the crack. The observer got nervous that the suspect knew that the observer saw the crack on the floor so the observer felt obligated to say something even though the officers were about to leave the room.

Observer helps to arrest or detain suspects

Fourth, observers also helped patrol officers when (and if) they had to arrest suspects. Tables 6.9 through 6.13 show a detailed breakdown of the qualitative coding on observers helping arrest or detain suspects. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.11 to

6.13) for how often observers helped patrol officers arrest or detain suspects.

In Table 6.9, observers documented that they helped patrol officers in this manner within "ride form reactivity", during events within a ride, or during encounters within a ride in .1%, 2.3%, and 2.2% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Given that citizens are by definition present during encounters, it is not surprising that observers are about two times more likely to help patrol officers arrest or detain suspects during encounters with citizens (.3% of encounter) and officer initiated encounters (.4% of officer initiated encounters) compared to all activities and encounters (.1% of all events) and officer initiated activities and encounters (.2% of officer initiated encounters). However, observers are more likely to help to arrest or detain suspects during officer-initiated events. By cross-referencing Table 6.9 and 6.10, observers helped arrest or detain suspects during 42 activities and encounters scattered over 17 rides (or about 2.5 times per ride on average). Similarly, observers helped patrol officers during 23 encounters scattered over 16 rides (or about 1.4 times per ride).

As noted above, Table 6.11, 6.12, and 6.13 list the amount of time an observer helps a patrol officer per ride, per event, and per encounter respectively. Table 6.11[58] shows that, for the 17 rides where an observer helps a patrol officer during *all* events within a ride (all activities and encounters), the observer is spending on average 65.5 minutes per shift helping an officer arrest or detain a suspect.

Observers are spending slightly less time (57.2 minutes per ride on average) helping patrol officers during encounters with citizens during the 16 rides when observers

assist in arresting or detaining suspects. However, this is counterintuitive[59] since encounters with citizens are typically the most complex and time-consuming aspects of police work.

The reason for this counterintuitive finding is what I call *reactivity as a chain of events*. In short, when observers help patrol officers arrest or detain suspects, this alters the course of events and sets off a chain of events that were triggered by the assistance of the observer. More specifically, observers assisting with the arrest or detention of suspects resulted in a chain of 2 events for 2 rides, 3 events for 2 rides, 9 events during one ride, and 10 events in another. By focusing on encounters, the qualitative data show the *source* of reactivity (e.g., observers assisting officers during arrest), but not the more general effect of observer assistance on police observational data (i.e., *reactivity as a chain of events*).

Table 6.12[60] looks at the data from a different perspective: the amount of time per *event*. Observers spend more time helping patrol officers arrest or detain suspects during all activities and encounters (65.5 minutes per event on average) compared to officer initiated activities and encounters (57.2 minutes per event on average). Table 6.13[61] shows the amount of time per *encounter* where an observer helps a patrol officer in this manner. Observers spend more time helping during all encounters (26.5 minutes per encounter on average) compared to officer initiated encounters (24.9 minutes per encounter on average).

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.9 through 6.13 by providing concrete examples of how observers helped patrol officers to arrest or detain suspects. More specifically, during a traffic stop,

the patrol officer said he usually does not search a car without backup, but since the observer was there, the observer could watch the driver while he searched his vehicle. On numerous occasions, the officer asked the observer to keep an eye on the suspects when s/he was busy with something else. At times, the suspects were already handcuffed, but at other times the suspects were standing with their feet spread and their hands on the hood of the cruiser. One officer asked the observer to watch two suspects when he walked to the back of his car in order to get some tickets from his trunk. Another observer was asked to keep an eye on a suspect in an auto theft who was handcuffed and sitting in the cruiser while the officer tried to sort out the citizen's story. A different officer asked the observer to watch a handcuffed suspect while he went into the bathroom where the suspect attempted to flush crack down the toilet. In a separate case, an officer handed the observer a flashlight and asked him to watch a handcuffed suspect who was accused of flashing a young girl while the officer went over to talk to the complainant.

While two officers were struggling to subdue a suspect who attempted to run while being frisked during a field interrogation, O1 asked the observer to keep an eye on the four other suspects who were standing with their hands on O1's car. The suspects began to pull away from the patrol car and one suspect was reaching for something in his pant leg or shoe during the commotion. The observer told them, in a commanding tone, "move back toward the car and let me see your hands." The suspects responded accordingly.

While most instances where observers helped patrol officers were casual requests strictly for the convenience of the officer, on a few occasions, observers were put in a position where they felt obligated or forced to help police officers. During one ride, an

officer was investigating the stabbing of a pregnant female in a large European style hostel when the observer needed to subdue a suspect. Another resident had stabbed a pregnant female. While the officer was questioning the pregnant woman, her boyfriend, and two other witnesses, the suspect came walking down the hallway. The boyfriend jumped out of his seat, ran out into the hallway, and started punching and wrestling with the suspect. The officer jumped into the middle of the fight, but had some trouble getting the two separated so he yelled for the observer to help him. The observer immediately grabbed the boyfriend by his waist and physically subdued him. The boyfriend did not place his hands behind his back and said the officer had no right to arrest him. O1, in a very elevated tone, told the boyfriend to put his "fucking hands" behind his back. The boyfriend complied. O1 then handed the observer a pair of rubber gloves and asked him to put them on and put the carpet knife that was the weapon in the assault in his trunk. Even though the observer refused numerous times, he eventually did it because there was no backup present.

On a different occasion, two officers were attempting to handcuff a suspect that was trying to pull away and refusing to put his arms behind his back. O2 yelled at him to stop resisting, but the citizen kept trying to pull his arm away. O1 took his foot and knocked the suspects feet out from under him. The suspect fell forward, landed on his head, and moaned while O1 put the handcuffs on him. O1 went inside his car to get a form while two other officers were talking to the complainant. Meanwhile, the suspect stood up and started yelling at the observer about hitting him in the face. The observer yelled, "Stay on the ground." O2 ran over and pushed the suspect back on the ground.

Observer helps patrol officer in two or more ways

The previous discussion of observers helping patrol officers has treated each subcategory as if they were mutually exclusive. However, there are instances where an observer helps the patrol officer with *two or more* of the following: police work, gives information or advice, or deals with citizens.

Tables 6.9 through 6.13 shows a detailed breakdown of the qualitative coding on observers helping patrol officers two or more times. The purpose of this section is to discuss the frequency distributions (in Table 6.9 and 6.10) and descriptive statistics (in Table 6.11 to 6.13) for how often observers helped patrol officers in two or more ways. In Table 6.9, observers documented that they helped patrol officers in this manner during events within a ride, or during encounters within a ride in 1.0% and 1.0% of rides respectively.

Table 6.10 gives a more detailed breakdown of the frequency of these events (activities and encounters). Observers are two times more likely to help patrol officers in two or more ways during officer initiated encounters (.2% of officer initiated encounters) compared to all activities and encounters (.1% of all events), officer initiated activities and encounters (.1% of officer initiated encounters), and all encounters (.1% of all encounters). By cross-referencing Table 6.9 and 6.10, observers helped patrol officers in two or more ways during 20 activities and encounters scattered over 7 rides (or about 2.9 times per ride on average). Similarly, observers helped patrol officers during 9 encounters scattered over 7 rides (or about 1.3 times per ride).

As noted above, Table 6.11, 6.12, and 6.13 list the amount of time an observer helps a patrol officer per ride, per event, and per encounter respectively. Table 6.11[62]

shows that, for the 7 rides where an observer helps a patrol officer during *all* events within a ride (all activities and encounters), the observer is spending on average 72.4 minutes helping the patrol officer over the course of a shift. Observers are spending less time (50.3 minutes per ride on average) helping patrol officers during the 34 rides when observers help patrol officers in two or more ways during encounters with citizens.

As noted above, when observers help patrol officers in two or more ways, this alters the course of events and sets off a chain of events that were triggered by the assistance of the observer (*reactivity as a chain of events*).[63] More specifically, observers who helped a patrol officer in two or more ways set off a chain of 3 events for 2 rides and 10 events in another. By focusing on encounters, the qualitative data show the *source* of reactivity (i.e., the initial encounter when observers helped patrol officers), but underestimate the more general effect of observer assistance on police observational data (i.e., *reactivity as a chain of events*).

Table 6.12[64] looks at the data from a different perspective: the amount of time per *event*. Observers spend more time helping patrol officers during all activities and encounters (25.4 minutes per event on average) compared to officer initiated activities and encounters (18.9 minutes per event on average). Table 6.13[65] shows the amount of time per *encounter* where an observer helps a patrol officer. Observers spend slightly more time helping during all encounters (39.1 minutes per encounter on average) compared to officer initiated encounters (26.6 minutes per encounter on average).

How observers can change the behavior of patrol officers

Observers can change patrol officer behavior in three ways. First, citizens asked who the observer was. Usually, patrol officers could clear up any questions very quickly

by saying "s/he's with me." However, on two occasions, the citizens became highly agitated and angry. In one case, the citizen did not want "any white bitch" in her house. The officer encouraged the observer to stay in the house because he wanted to arrest her, but the observer left voluntarily since it was obvious that her presence was upsetting the citizen. In another case, the suspect thought the observer was his ex-wife's boyfriend and was trying to intimidate him or possibly attack him before the officers cleared up this case of mistaken identity.

In both of these cases, the observer was able to avoid becoming a significant influence on the behavior of the patrol officer. However, things could have turned out very differently. If the officer used the citizen's rude and belligerent behavior toward the observer to arrest her, then the presence of the observer was a direct cause of the arrest. If the jealous ex-husband jumped on the observer and tried to beat him up because he thought the observer was his wife's boyfriend, then officers would have had to subdue him and arrest him. Clearly, in these two cases, cases of mistaken identity can trigger citizen rage which would then lead to a chain of events (patrol officers handcuffs the citizen, arrests him/her, waits for the paddy wagon, fills out paperwork, etc.) which differs significantly from what actually happened (patrol officer walks away).

A second way observers can influence the behavior of patrol officers is by distracting them from doing what they normally do. For example, one officer took the observer to a shop because the observer said he liked a model sized police car that officer had on his dash. Similarly, patrol officers gave observers "tours" of the nice homes in their beats. Another group of officers spent an entire shift playing a practical joke on another officer who had a rider. Other officers tried to get observers involved in police

work by participating in arrests as a practical joke. One observer reminded an officer about a rape and caused the officer to investigate whether or not the event occurred in his beat. Obviously, the officer would not have engaged in these activities if the observer were not there.

Third, observers changed the behavior of patrol officers by helping them with police work. In most cases, patrol officers were able to clear a call for service more quickly because of the assistance of the observer. For example, it would have taken the patrol officer more time to push a car out of an intersection or move furniture or fetch paperwork from the cruiser without the help of the observer. However, there were some cases where observers significantly altered the course of events because they helped the officer do police work. In other words, the next three examples are specific instances of *reactivity as a chain of events*.

In one instance, the patrol officer (O1) responded to a call for an officer in need of assistance. When he arrived at the scene, O1 could see another officer (O2) attempting to put a young black male into the back seat of his cruiser. There was a crowd of about 20 or more spectators who surrounded O2 and were yelling and harassing him. Even though eight other officers arrived on the scene, the crowd grew to 50 people, became increasingly agitated, and threatened the officers with violence.

Since there was an extra vehicle (the suspect's late model sedan), O1 ordered the observer to drive the extra cruiser and follow the other officers to a safer location. The observer drove the cruiser about four blocks at high speeds away from the crowd. This enabled the officers to search the car, confiscate a small amount of drugs, and determine that it was stolen, and reunite the owner of the car with his stolen property. If the

observer (an extra driver) had not been there, the officers would have had to abandon the suspect's vehicle and flee from the angry crowd. They would not have been able to determine if the car was stolen. They would not have found the drugs the suspect had in the car. They may have had no reason to arrest the suspect. In short, the observer's assistance in this case set of a chain of events that would not have happened if the observer were not there. Reactivity occurred because the observer moved a car and helped the patrol officers do their job.

Another example where the observer significantly altered the course of events occurred when the officer under observation (O1) asked the observer to keep an eye on four teenaged suspects who were waiting to be patted down while O1 and another officer (O2) were chasing and then wrestling with a suspect who tried to run away from them. The four suspects began to move away from the car and one citizen reached into his pants or shoe to drop something when the observer told them in a commanding tone "Move back toward the car and let me see your hands." All four complied. O1 and O2 were finally able to get the fleeing suspect handcuffed, but if the observer was not present, the four other suspects would have at the very least dropped whatever drugs they had on them and at the very worst run away while O1 and O2 were distracted. O1 arrested all five suspects for charges ranging from gambling, drug possession, and public intoxication. If the observer had not been present, four of the five suspects would have fled.

A third example occurred when an observer assisted the officer in breaking up two citizens when one citizen attacked another citizen. One citizen, the victim's boyfriend (C1), attacked the second citizen (C2) because C2 attacked C1's pregnant girlfriend with a carpet knife. When the officer (O1) tried to stop C1 from attacking C2, he could not get

the two of them apart so he yelled for the observer's assistance. The observer then picked up C3 by the waist and helped O1 separate the two citizens. The observer also placed the carpet knife into O1's trunk under protest. However, the presence of the observer did change the dynamics of this encounter. It was relatively simple to separate C1 and C2 with the assistance of the observer, but if the patrol officer was alone he may have had to use his mace, his baton, or hit his emergency switch on his belt (his "man down" switch) which summons other officers in case an officer's life is in danger while struggling with C1 and C2. The patrol officer could have been hurt or the citizens could have been hurt when subdued and separated by 8 or 10 officers responding to the patrol officer's call for help.

In the fourth example, an observer told two officers who were searching a motel room for drugs when she found a piece of crack on the floor. The officers were going to leave the room since their search had not turned up anything and the warrant checks came up negative. However, at this time, the observer (who was standing against a wall) noticed something next to her foot. Without thinking she picked up the object and noticed that it was a piece of crack cocaine. The observer got very nervous, dropped the crack on a table, and looked up to see that both suspects had seen her pick up the crack. The observer was worried that the suspects "might inform someone that the police picked up their crack and took it with them, or that the observer had pocketed the crack." The observer was also worried that the officers would notice the crack on the table that two officers had already searched and would need some explanation about how the crack got there.

As a result, the observer told O1 that she found the crack on the floor. O1 was

pleased about this and instructed the third officer (O3) to take C2 outside and separate her from C1. O1 searched the floor next to the observer and found two more large pieces of crack.[66] Since the observer picked up the crack and told the officers about it, this set of a chain of events which included: (1) confronting C1 with the crack found on the floor. (C1 said it probably belonged to his cousin.); (2) thoroughly searching C1's vehicle for drugs and weapons; (3) handcuffing, deciding to arrest C2 (because she lied to O1) and then to not arrest C2 (because she started telling the truth) after lecturing and then returning C2 to her indifferent parent's custody; (4) testing the crack and then processing the crack in the police evidence room; (5) contacting the state's attorney's office about C2's juvenile hearing for her case involving possession of crack; (5) writing the report for this entire incident (leaving the observer out of it).

In contrast, reactivity was avoided in a traffic stop because the observer did not offer assistance. The officer (O1) was driving around when he saw a car with several black men leaning into it. O1 assumed it was a drug buy so he pulled the car over. The car did not stop immediately so he shouted in an authoritative voice "STOP THE CAR!" The car stopped and O1 asked the driver to step out of the car. C1 appeared spaced out and had very dilated pupils. O1 asked C1 how much he had to drink and if he had drugs in the car. While O1 was patting down C1, the observer saw the female passenger in the back seat (there were two other passengers in the car) put something in her mouth. O1 then separated C1 and the other three citizens, patted down the two male passengers, and asked them what they were doing in this area. The female passenger could only nod her head and seemed completely out of it. All four were clearly lying and said they were going to visit a different person in the area. O1 conducted a final search of the vehicle,

but found nothing. After telling one male passenger to dump out his beer, O1 let them go. He was confident they were buying dope, but he had no evidence and there was nothing else he could do.

In this case, the observer could have told the officer to check under the tongue of the female passenger for crack since she suspiciously placed something in her mouth when O1 was searching the driver. O1 did not search the car, but likely would have if he found out one of the passengers was lying to him. Since the observer kept his mouth shut, nothing happened, there was no reactivity although the potential was clearly there.

Overview of findings: observers cause reactivity

There were three ways that observers caused reactivity. First, observers changed the dynamic of police-citizen encounters. Citizens asked about the presence of an observer during police-citizen encounters. At times, observers were mistaken for patrol officers, but the observer and/or the officer quickly cleared up these cases of mistaken identity. However, there were two cases where the observer inadvertently infuriated a citizen and became the focal point for a potentially explosive situation.

Second, observers distracted patrol officers from their normal behavior. Some patrol officers talked to observers to the point where it was changing their behavior. Other officers tried to accommodate observers by taking them on tours of beautiful homes in the district or by taking the observer shopping for a model police car the observer had expressed interest in. Observers were also the catalyst for practical jokes and/or juvenile behavior. More seriously, patrol officers also forced observers to decide whether or not to arrest a citizen as a practical joke on several occasions.

Third, observers were treated as partners by patrol officers and helped patrol

officers with police work. There were also a handful of cases where observers significantly altered the course of events by assisting officers when arresting or detaining suspects. In short, when observers help patrol officers arrest or detain suspects, this alters the course of events and sets off a chain of events that were triggered by the assistance of the observer. In other words, when observers help patrol officers arrest or detain suspects, it is typically not an isolated event within a ride. By focusing on encounters, the qualitative data show the *source* of reactivity (e.g., observers assisting officers during arrest), but underestimates the more general effect of observer assistance on police observational data (i.e., *reactivity as a chain of events*).

Supervisors, dispatchers, and patrol officer behavior

During my review of POPN qualitative data, I uncovered a handful of cases (9 shifts) where patrol officers were attempting to avoid observation by either taking days off when observers were assigned to them or making deals with supervisors to make sure an observer was not assigned to them.[67] Some patrol officers insisted on receiving notice before having an observer. Some supervisors switched officer assignments around at the last second if one officer did not want a rider while another did not mind having a rider. In short, reassignment of patrol officers by supervisors could skew the sample of patrol officers under observation and give a skewed picture of what patrol officers do and how they do it.

On a similar note, when given a choice, supervisors could be placing observers with very active patrol officers and thus distort the distribution of patrol officer behavior. One lieutenant intentionally placed the observer with an officer because the observer "would actually get to do something." While the officer under observation was catching

up on paperwork at the station, another sergeant offered to assign the observer with an officer "who would take some runs," but the observer convinced the sergeant that observers were supposed to observe the normal routine of patrol officers.

Dispatchers could also affect patrol officer behavior. One officer claimed that the dispatcher would not send him on any obviously dangerous calls because of the presence of a ride-along. Another officer stated that dispatch would not send him on certain calls as if the department had decided to alter the way calls were assigned based on whether or not an officer had an observer. Four other officers during four separate rides called dispatch to tell them that they had a civilian rider (but did not mention why to the observer). All of these cases occurred in St. Petersburg and suggest that dispatchers were screening calls in order to keep observers safe. However, dispatchers also prevented observers from observing police behavior during dangerous situations. A more definitive test of officer's claims that dispatchers were screening calls for service would involve comparing dispatched calls for service for shifts where an officer is accompanied with an observer versus unaccompanied. However, this comparison cannot be made with POPN observational data.

Reactivity and patrol officer behavior

The following themes were discovered after my review of the qualitative data: (1) self-consciousness about the presence of the observer; (2) angry or in a rage about not having enough notice when assigned an observer; (3) concerned about ensuring the safety of the observer; (4) citizens asking about the presence of observers; (5) observers distracting officers, (6) observers helping patrol officers do police work; (7) supervisors reassigning patrol officers who are uncomfortable with observers; or (8) dispatchers

screening out dangerous calls when patrol officers are accompanied by observers.

The purpose of this section is to discuss reactivity and its impact on police behavior. The field research literature is split about the impact of reactivity on patrol officer behavior. On the one hand, patrol officers could 'show off' for observers by becoming extremely proactive and aggressive while on patrol since observers are a friendly, attentive, and non-threatening audience. On the other hand, patrol officers could be highly suspicious of outsiders and curtail their behavior in an attempt to shield observers from the "worst" aspects of police work (e.g., brutality).

POPN quantitative data included an item where observers coded whether the officer became more proactive or less proactive as a result of their presence. The "ride form reactivity" section also mentions whether or not observers were making officers more or less proactive. The remainder of this section will describe instances where patrol officers become more proactive or less proactive due to the presence of an observer. First, I will describe types of patrol officer behavior where the officer is acting more proactive. Next, I will describe instances where patrol officers are less proactive.

Patrol officer is more proactive

Tables 6.14 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for the most general measure of more proactive police behavior within the qualitative coding (*more proactive – all cases*).

Table 6.14 through Table 6.18 give the frequency distributions and descriptive statistics for all cases of more proactive police behavior.[68] Table 6.14 gives the percent of rides where an officer is more proactive. Patrol officers gave some indication that they were more proactive in 15.6% of rides. Observers documented that patrol officers were more proactive in "ride form reactivity", during events within a ride, or during encounters within a ride in 11.4%, 7.7%, and 3.2% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were more likely to become more proactive during officer initiated events (.6% of activities and encounters and .6% of officer initiated encounters) compared to all activities and encounters (.4%) and all encounters (.4%). By cross-referencing Table 6.14 and 6.15, patrol officers were more proactive during 136 activities and encounters scattered over 56 rides (or about 2.4 times per ride on average). Similarly, patrol officers were more proactive during 29 encounters scattered over 23 rides (or about 1.3 times per ride).

The frequency counts in Table 6.14 and 6.15 are dichotomous coding of the *ride* or the *event* where an officer becomes more proactive. However, Table 6.14 and 6.15 cannot tell you much *time* per ride or per event patrol officers were more proactive.[69] Table 6.16, 6.17, and 6.18 provide this piece of information: the amount of time an officer indicates s/he is more proactive per shift, per event, and per encounter respectively.

Table 6.16[70] shows that, for the 56 rides where patrol officers acted more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 31.6 minutes per shift acting more proactively. Observers are spending less

time (21.4 minutes per ride on average) acting more proactively during encounters with citizens.

The reason why officers spend less time being more proactive during encounters compared to all events (sum of activities and encounters) over the course of the shift is what I call *reactivity as a chain of events*. In other words, more proactive patrol officer behavior occurs as a chain of events. More specifically, during 30 rides out of 56, more proactive patrol officer behavior encompasses a chain of events of *at least* two events.[71] In other words, although it makes intuitive sense given that police researchers utilize police observational data that focuses on encounters with citizens, estimates of reactivity will be underestimated if police researchers measure reactivity by focusing exclusively on encounters. In addition, when patrol officers are more proactive, it is typically not an isolated event: reactivity is more likely to be a chain of events.

Table 6.17[72] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time acting more proactively during all activities and encounters (13.0 minutes per event on average) compared to officer initiated activities and encounters (10.8 minutes per event on average). Table 6.18[73] shows the amount of time per *encounter* where officers are more proactive. Officers spend less time being more proactive during all encounters (17.0 minutes per encounter on average) compared to officer initiated encounters (18.5 minutes per encounter on average).

As noted above, there is an item within the quantitative data for activities and encounters that distinguishes stronger evidence of more proactive police behavior from all cases of more proactive patrol officer behavior. In addition, observers documented within "ride form reactivity" if the patrol officer explicitly stated that s/he was becoming

more proactive. So, while Table 6.14 to Table 6.18 are *all cases* where an officer showed signs of being more proactive, Table 6.19 to 6.23 are a subset of cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*).

Tables 6.19 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior where the officer explicitly stated s/he is changing his/her behavior due to the presence of the observer. The purpose of this section is to discuss the frequency distributions (in Table 6.19 and 6.20) and descriptive statistics (in Table 6.21 to 6.23) for the most general measure of more proactive police behavior within the qualitative coding (*more proactive – all cases*).

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior and becoming more proactive. Patrol officers gave some indication that they were more proactive in 8.1% of rides (or a subset of 52% of all rides from Table 6.14 where an officer gives *any* indication of becoming more proactive). Observers documented that patrol officers were more proactive in "ride form reactivity", during events within a ride, or during encounters within a ride in 4.9%, 4.5%, and 1.4% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events. Patrol officers were more likely to explicitly state they were more proactive during officer initiated events (.3% of officer initiated activities and encounters), equally likely to during officer initiated encounters (.2% of these events) and all events (.2% of all activities and encounters), and least likely during all encounters (.1%). By cross-referencing Table 6.19 and 6.20, patrol officers explicitly stated they were more proactive during 74 activities

and encounters scattered over 33 rides (or about 2.2 times per ride on average). Similarly, patrol officers explicitly stated they were more proactive during 11 encounters scattered over 10 rides.

The frequency counts in Table 6.19 and 6.20 are dichotomous coding of the *ride* or the *event* where an officer becomes more proactive. However, Table 6.19 and 6.20 do not indicate how much *time* per ride or per event patrol officers were more proactive. Table 6.21, 6.22, and 6.23 provide this piece of information: the amount of time the patrol officer explicitly stated they were more proactive per shift, per event, and per encounter respectively.

Table 6.21[74] shows that, for the 33 rides where an officer explicitly stated s/he acted more proactive during *all* events within a ride (all activities and encounters), the observer is spending on average 27.2 minutes acting more proactively over the course of a shift. Officers spent less time (9.3 minutes per ride on average) acting more proactively during encounters with citizens.

As noted above, the reason why officers spend less time being more proactive during encounters compared to all events (sum of activities and encounters) is what I call *reactivity as a chain of events*. These chains of at least two events are more common when an officer explicitly stated s/he acted more proactively (22 rides out of 33 or 67% of rides)[75] compared to all events where an officer gave any indication that s/he acted more proactively (30 rides out of 56 or 54% of rides).

Table 6.22[76] looks at the data from a different perspective: the amount of time per *event*. Officers explicitly stated they were more proactive during all activities and encounters (12.1 minutes per event on average) compared to officer initiated activities

and encounters (10.0 minutes per event on average). Table 6.23[77] shows the amount of time per *encounter* where officers explicitly stated they were more proactive. Officers spent less time being more proactive during all encounters (8.5 minutes per encounter on average) compared to officer initiated encounters (10.1 minutes per encounter on average).

Why are patrol officers more proactive? They are showing off

The previous section overviewed the most general measures of how often patrol officers are more proactive. However, the qualitative coding also uncovered two reasons why patrol officers felt the need to become more proactive. One reason was that officers were very comfortable with the presence of an observer, enjoyed having someone to talk to, were very friendly, and were eager to show observers exciting aspects of police work. In other words, patrol officers wanted to "show off" for the observer.

Tables 6.14 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for how often (and how long) patrol officers are more proactive because they are showing off (*show off*).

Table 6.14 through Table 6.18 give the frequency distributions and descriptive statistics for all cases of more proactive police behavior. Table 6.14 shows that observers documented that patrol officers were more proactive and showing off in "ride form reactivity", during events within a ride, or during encounters within a ride in 5.8%, 3.0%, and 1.5% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events.

Patrol officers were more likely to show off during officer initiated events (.3% of activities and encounters) and equally likely to show off during .2% of all events, all encounters, and officer initiated encounters. By cross-referencing Table 6.14 and 6.15, patrol officers were more proactive during 64 activities and encounters scattered over 22 rides (or about 2.9 times per ride on average). Similarly, patrol officers were more proactive during 14 encounters scattered over 11 rides (or about 1.3 times per ride).

Table 6.16, 6.17, and 6.18 show the amount of time an officer indicates s/he is showing off per shift, per event, and per encounter respectively. Table 6.16[78] shows that, for the 22 rides where patrol officers indicated they were more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 28.2 minutes per shift showing off for the observer. Officers are spending less time (11.5 minutes per ride on average) showing off during encounters with citizens.

The difference in the sum of all events (28.2 minutes) and all encounters (11.5 minutes) is due to *reactivity as a chain of events*. In other words, when patrol officers show off, it is not a single event or even an isolated event during a ride. Instead, it is a chain of related events. More specifically, during 17 out of the 22 rides (or 77% of these rides) where an officer shows off for the observer, it occurred within a chain of at least 2 events.

Table 6.17[79] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time showing off during all activities and encounters (9.9 minutes per event on average) compared to officer initiated activities and encounters (8.7 minutes per event on average). Table 6.18[80] shows the amount of time per *encounter* where officers are showing off. Officers spend time being more proactive during all

encounters (12.5 minutes per encounter on average) compared to officer initiated encounters (9.8 minutes per encounter on average).

As noted above, there is an item within the quantitative data for activities and encounters that distinguishes stronger evidence of more proactive patrol officer behavior: when officers explicitly state they are changing their behavior due to the presence of the observer. In addition, observers documented within "ride form reactivity" if the patrol explicitly stated that s/he was showing off. So, while Table 6.14 to Table 6.18 are *all cases* where an officer showed signs of being more proactive, Table 6.19 to 6.23 are a subset of cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*).

Tables 6.19 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior where the officer explicitly stated s/he is showing off for the observer. The purpose of this section is to discuss the frequency distributions (in Table 6.19 and 6.20) and descriptive statistics (in Table 6.21 to 6.23) for instances when patrol officers explicitly state they are showing off for the benefit of the observer.

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior by showing off. Observers documented that patrol officers were more proactive in "ride form reactivity" during 3.6% of rides. By cross referencing Table 6.14 (all cases of show off) with Table 6.19 (cases of show off where officer stated change), patrol officers explicitly state they are showing off for observers during about 62% (or 26 out of 42) rides documented within "ride form reactivity." However, officers do not explicitly state that they are showing off for observers during specific events within rides.

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.14 through 6.23 by providing concrete examples of how patrol officers show off for the benefit of observers. More specifically, officers asked if there was anything special the observer wanted to see or ask if there was anything they could show the observer. Patrol officers also commented that they wanted to show observers "something interesting" and went out of their way to "show the observer some action" and "stir up some trouble." One officer said he hoped that "something exciting would happen" so she could show it to the observer. A different officer said he wanted to show the observer "some good stuff." One patrol officer was "obsessed" with getting into a foot chase for the observer's benefit and another officer said he would take the observer to see a shooting if one occurred. On a similar note, on two occasions, supervisors attempted to place observers with active patrol officers to make sure the observer would see some action. Another lieutenant told an officer who planned on working on paperwork all day that she could not do paperwork all day because she had a rider.

Why are patrol officers more proactive? They are self-conscious.

The second reason patrol officers became more proactive in the presence of an observer was self-consciousness. Tables 6.14 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for more proactive patrol office behavior which was triggered by self-consciousness (*self-conscious*).

Table 6.14 through Table 6.18 give the frequency distributions and descriptive

statistics for all cases of more proactive police behavior. Table 6.14 gives the percent of rides where an officer feels self-conscious about not being more proactive. Observers documented that patrol officers were self-conscious in "ride form reactivity", during events within a ride, or during encounters within a ride in 2.2%, .1%, and .1% of rides respectively. Table 6.15 also gives a more detailed breakdown of the frequency of these events. Table 6.15 shows that observers documented that patrol officers acted self-conscious during a single officer initiated encounter.

As noted above, Table 6.16, 6.17, and 6.18 provide the amount of time an officer indicates s/he is more proactive per shift, per event, and per encounter respectively. Since Table 6.15 shows that patrol officers acted self-conscious during a single officer initiated encounter, the amount of time the patrol officer spent acting self-conscious in Table 6.16 to 6.18 can be summarized very succinctly: patrol officers acted self-conscious and felt the need to become more proactive during a single encounter which was 51 minutes long.

Tables 6.19 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior where the officer explicitly stated s/he is changing his/her behavior due to the presence of the observer. However, observers did not document any cases in Table 6.19 to 6.23 where patrol officers explicitly stated that they were self-conscious and felt obligated to act more proactively due to the presence of the observer.

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.14 through 6.23 by providing concrete examples of how patrol officers act self-conscious and obligated to patrol more proactively for the benefit of observers. Patrol officers stated that they were more proactive (i.e., patrolled more

aggressively) during .5% of rides because they were worried that either: (a) observers would not collect enough data for the study; or (b) the observer would think that the officer was lazy. One officer said that if he didn't get busy "there might not be enough data for the study." Another officer asked the observer several times "if he had anything to write about yet." A different officer was concerned that the observer was bored during a slow ride and "would have to make up stuff to do the 'report.'"

Similarly, one patrol officer commented that "it was annoying to have a rider....because he felt like he needed to stay busy." Another officer said "she feels like she always has to do something because her observer is constantly writing." A different officer commented, "he had better spend more time patrolling so you people don't think I'm lazy." One observer felt that an officer was more active during the shift because he wanted to "make a better impression on the observer."

More proactive patrol officer behavior: non-dispatched calls for service

Almost all cases of more proactive police behavior occurred during times when patrol officers were free from supervisor or dispatch assignments. Patrol officers utilized this free time to engage in officer-initiated activities in order to "find some action" or "stir up some trouble." Officers altered their behavior in a number of different ways. First, patrol officers went to non-dispatched calls for service in an attempt to show observers more exciting aspects of police work. Tables 6.14 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21

to 6.23) for how often patrol officers respond to a greater number of non-dispatched calls for service as a result of the presence of the observer (*calls for svc*).

Table 6.14 through Table 6.18 give the frequency distributions and descriptive statistics for all cases of more proactive police behavior. Table 6.14 gives the percent of rides where an officer reacts to the presence of the observer by responding to non-dispatched calls for service. Observers documented that patrol officers were reacting to their presence in this manner in "ride form reactivity", during events within a ride, or during encounters within a ride in 1.2%, 1.4%, and .3% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events. Patrol officers were more likely to become more proactive and respond to non-dispatched calls for service during all activities and encounters and officer initiated events (.1% of activities and encounters and .1% of officer initiated encounters) compared to all encounters (less than .1%) and officer initiated encounters (0%). In other words, with two exceptions, patrol officers did not interact with citizens while taking observers to observer interesting non-dispatched calls for service. From a practical standpoint, this makes sense: patrol officers may only want to show observers interesting calls for service, but may not want to take on the additional work (e.g., writing up reports or transporting suspects) that a higher level of involvement would entail.

By cross-referencing Table 6.14 and 6.15, one can see that patrol officers were more proactive by responding to non-dispatched calls for service during 26 activities and encounters scattered over 10 rides (or about 2.6 times per ride on average). Similarly, patrol officers were more proactive during 2 encounters evenly spread over 2 rides.

Table 6.16, 6.17, and 6.18 details the amount of time an officer spends responding

to non-dispatched calls for service for the benefit of the observer per shift, per event, and per encounter respectively. Table 6.16[81] shows that, for the 10 rides where patrol officers acted more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 23.5 minutes responding to non-dispatched calls for service over the course of a shift. Observers are spending about ¼ of that time (6.0 minutes per ride on average) interacting with citizens during encounters while responding to these non-dispatched calls. There are two reasons for this. First, as noted above, (with two exceptions) patrol officers avoid interacting with citizens when responding to non-dispatched calls for service. As a result, by only focusing on all encounters, reactivity is underestimated since the bulk of these events are activities. Second, 9 out of 10 of the rides where officers become more proactive and respond to non-dispatched calls for service are part of a chain of at least two events (*reactivity as a chain of events*).[82] In other words, these are not *stand-alone* events, but part of a chain of events. Observers were most likely to document that patrol officers were more proactive in this manner by identifying a chain of at least two events: when patrol officers are en route to a non-dispatched call for service and when patrol officers are at the scene of the non-dispatched call for service.

Table 6.17[83] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time responding to non-dispatched calls for service during all activities and encounters (9.1 minutes per event on average) compared to officer initiated activities and encounters (8.5 minutes per event on average). Table 6.18[84] shows the amount of time per *encounter* where officers are more proactive. Officers spend on average 6.0 minutes per encounter acting more proactively by responding to non-

dispatched calls for service.

As noted above, there is an item within the quantitative data for activities and encounters that distinguishes stronger evidence of more proactive police behavior from all cases of more proactive patrol officer behavior. In addition, observers documented within "ride form reactivity" if the patrol explicitly stated that s/he was becoming more proactive. So, while Table 6.14 to Table 6.18 are *all cases* where an officer showed signs of being more proactive, Table 6.19 to 6.23 are a subset of cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*).

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior by responding to non-dispatched calls for service. Observers documented that patrol officers were doing so in "ride form reactivity", during events within a ride, or during encounters within a ride in .5%%, 1.4%, and .1% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events. Patrol officers were more likely to explicitly state they were acting more proactive while responding to non-dispatched calls for service during all events (.1% of all activities and encounters) and officer initiated events (.1% of officer initiated activities and encounters) compared to all encounters (less than .1%). By cross-referencing Table 6.19 and 6.20, patrol officers explicitly stated they were more proactive and responding to non-dispatched calls for service during 22 activities and encounters scattered over 10 rides (or about 2.2 times per ride on average). Similarly, patrol officers explicitly stated they were more proactive during 1 encounter within a ride.

Table 6.21, 6.22, and 6.23 provide the amount of time an officer indicates s/he is more proactive by responding to non-dispatched calls for service per shift, per event, and per encounter respectively. Table 6.21[85] shows that, for the 33 rides where an officer explicitly stated s/he acted more proactive while responding to non-dispatched calls for service during *all* events within a ride, the observer is spending on average 21.5 minutes acting more proactively over the course of a shift.

As noted above, one reason why officers spend less time being more proactive during encounters compared to all events (sum of activities and encounters) is what I call *reactivity as a chain of events*. These chains of at least two events occur during 8 rides out of 10 when an officer explicitly stated s/he acted more proactively.[86] These events are not isolated instances within a ride. Instead, these events are a chain of at least two events during 80% of these rides.

Table 6.22[87] looks at the data from a different perspective: the amount of time per *event*. Officers spend slightly more time with when they explicitly stated they were responding to non-dispatched calls for service with all activities and encounters (9.8 minutes per event on average) compared to officer initiated activities and encounters (9.6 minutes per event on average). Table 6.23[88] shows the amount of time per *encounter* where officers explicitly stated they were reacting to the presence of the observer. Officers spent one minute in the one encounter where officers explicitly stated they were reacting to the presence of the observer by responding to non-dispatched calls for service.

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.14 through 6.23 by providing concrete examples of instances when patrol officers become more proactive by responding to non-dispatched calls for service.

More specifically, one officer rushed to get an observer to the scene of a suicide so the observer could see the body before it was moved. Another officer dropped by the scene of another suicide scene in order to let the observer see the body, but stayed outside because of the smell. During another ride, an officer took an observer to a DOA in order to "expose the observer to that type of situation." Similarly, an officer took a different observer on a different ride to see a dead body (DOA) after he asked the observer if he had ever seen a dead body before. A different officer went to the scene of a head-on collision so the observer could check it out. Another officer (despite protests from the observer that he should do what he normally does) volunteered to direct traffic at an extremely gruesome traffic accident to show the observer some blood and gore.

On a different ride, the patrol officer went to the scene of a stabbing because she wanted the observer to see a stabbing (even though the observer told her that he had already seen one). On another occasion, a patrol officer took the observer to the scene of a homicide/suicide and guarded the crime scene. Another officer drove around an area where a shooting occurred outside of his beat so the observer could get a look. During a slow shift, a patrol officer was not dispatched to a call for a hold up alarm, but went anyway and backed up the officers on the scene "just to see what was going on and to show me some police work on this boring day." Other officers served as back up for calls involving domestic violence or a person hit with a firework and admitted that there was no real reason for them to go to these calls other than for the observer's benefit.

More proactive patrol officer behavior: aggressive patrol

In addition to responding to more non-dispatched calls for service, patrol officers also patrolled more aggressively when free from responding to dispatched calls for

service. Patrol officers served felony warrants, backed up a SWAT team while they executed a search warrant for drugs because "she was sure the observer would like to see the activity, " tried to become involved in a sting operation involving businesses selling alcohol to minors, and participated in an undercover prostitution detail in an attempt to expose observers to more exciting aspects of police work.

Tables 6.14 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for how often patrol officers engage in more aggressive patrol as a result of the presence of the observer.

Table 6.14 gives the percent of rides where an officer reacts to the presence of the observer by patrolling more aggressively. Observers documented that patrol officers were reacting to their presence in this manner in "ride form reactivity", during events within a ride, or during encounters within a ^{ride} in 3.2%, 1.9%, and 1.0% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events. Patrol officers were more likely to become more proactive and patrol aggressively during officer initiated activities and encounters (.2%) and officer initiated encounters (.2%) versus all activities and encounters and all encounters (.1% and .1% respectively). This makes intuitive sense given that patrol officers have more time to patrol aggressively and act on their own initiative when free from calls for service. By cross-referencing Table 6.14 and 6.15, patrol officers patrolled more aggressively during 30 activities and encounters scattered over 14 rides (or about 2.1 times per ride on average). Similarly, patrol officers were more proactive during 7 encounters evenly spread over 7 rides.

Table 6.16, 6.17, and 6.18 details the amount of time an officer reacts to the presence of the observer by patrolling more aggressively per shift, per event, and per encounter respectively. Table 6.16[89] shows that, for the 14 rides where patrol officers acted more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 29.1 minutes per shift patrolling more aggressively. Officers are also spending 24.3 minutes per ride on average interacting with citizens during encounters while patrolling aggressively.

Table 6.17[90] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time patrolling aggressively during all activities and encounters (13.6 minutes per event on average) compared to officer initiated activities and encounters (12.4 minutes per event on average). Table 6.18[91] shows the amount of time per *encounter* where officers are more proactive. Officers spend on average 24.3 minutes per encounter conducting aggressive patrol. Officers spend slightly less time (20.7 minutes per encounter) conducting aggressive patrol during officer initiated encounters.

Table 6.19 to 6.23 present stronger evidence of reactivity which are a subset of cases from Table 6.14 to 6.18. Table 6.19 to 6.23 list frequency distributions and descriptive statistics for cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). The purpose of this section is to overview instances when officers explicitly stated they were patrolling more aggressively due to the presence of the observer.

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior by patrolling more aggressively. Observers documented that

patrol officers were doing so in "ride form reactivity", during events within a ride, or during encounters within a ride in 2.3%, 1.2%, and .4% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events. Patrol officers explicitly stated they were patrolling more aggressively during .1% of all events, .1% of officer initiated events, .1% of all encounters, and less than .1% of officer initiated encounters. By cross-referencing Table 6.19 and 6.20, patrol officers explicitly stated they were patrolling more aggressively during 25 activities and encounters scattered over 9 rides (or about 2.8 times per ride on average). Similarly, patrol officers explicitly stated they were more aggressive while patrolling during 3 encounters evenly distributed over 3 rides.

Table 6.21, 6.22, and 6.23 provide the amount of time an officer explicitly states s/he is patrolling more aggressively per shift, per event, and per encounter respectively. Table 6.21[92] shows that, for the 9 rides where an officer explicitly stated s/he was patrolling more aggressively during *all* events within a ride (all activities and encounters), the officer spent on average 27.7 minutes acting patrolling more aggressively over the course of a shift. Officers spent less time (12.7 minutes per shift on average) patrolling more aggressively during only encounters with citizens.

Table 6.22[93] looks at the data from a different perspective: the amount of time per *event*. Since patrol officers only patrolled more aggressively when free from calls for service, officers spent the same amount of time patrolling more aggressively during all activities and encounters and officer initiated activities and encounters (10.0 minutes per event on average). Table 6.23[94] shows the amount of time per *encounter* where officers explicitly stated they were patrolling more aggressively. Similarly, officers spent the

same amount of time patrolling more aggressively for all encounters and officer initiated encounters (12.7 minutes per encounter on average) since patrol officers only patrolled more aggressively when free from calls for service.

More proactive patrol officer behavior: general motorized patrol

A second general category of behavioral change involved an increase in the amount of general motorized patrol. Events were categorized as general motorized patrol if the officer drove around *without any specific purpose.* Observers documented that patrol officers increased their normal level of general motorized patrol when making their assessment of reactivity for the entire ride ("ride form reactivity") and for events within a ride in 1.1%, .4% of rides respectively (see Table 6.14).

Table 6.15 gives a more detailed breakdown of the frequency of these events (activities and encounters). By definition, general motorized patrol is an activity since it involves patrol officers driving around in their cars alone with no specific purpose in mind and, more importantly, *with no citizens present.* As a result, Table 6.15 shows that observers documented that patrol officers were conducting higher than normal levels of general motorized patrol during less than .1% of all events and less than .1% of officer initiated events, but no cases of increased levels of general motorized patrol during encounters or officer initiated encounters. By cross-referencing Table 6.14 and 6.15, patrol officers were more proactive while conducting general motorized patrol during 6 activities scattered over 3 rides (or about 2 times per ride on average).

Table 6.16, 6.17, and 6.18 details the amount of time an officer spends conducting abnormally high levels of general motorized patrol for the benefit of the observer per shift, per event, and per encounter respectively. Table 6.16[95] shows that, for the 3 rides

where patrol officers were more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 50.0 minutes conducting higher levels of general motorized patrol over the course of a shift.

Table 6.17[96] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time conducting general motorized patrol during all activities and encounters (25.0 minutes per event on average) compared to officer initiated activities and encounters (7.0 minutes per event on average). Since general motorized patrol does not include encounters with citizens, there are no valid cases in Table 6.18.

As noted above, while Table 6.14 to Table 6.18 are *all cases* where an officer showed signs of being more proactive, Table 6.19 to 6.23 are a subset of cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). Tables 6.19 through 6.23 shows a detailed breakdown of the qualitative coding on more proactive patrol officer behavior where the officer explicitly stated s/he is changing his/her behavior due to the presence of the observer. The purpose of this section is to discuss the frequency distributions (in Table 6.19 and 6.20) and descriptive statistics (in Table 6.21 to 6.23) for instances when patrol officers become more proactive by conducting more generalized patrol than normal.

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior and becoming more proactive. Observers documented that patrol officers were conducting higher than normal levels of general motorized patrol in "ride form reactivity" and during events within a ride in .7%, .4% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events. As noted above, by definition, general motorized patrol does not involve citizen contact so

there are no valid cases of all encounters or officer initiated encounters. As a result, Table 6.20 shows that observers documented that patrol officers explicitly stated they were conducting higher than normal levels of general motorized patrol during less than .1% of all events and less than .1% of officer initiated events, but no valid cases during encounters or officer initiated encounters. By cross-referencing Table 6.19 and 6.20, patrol officers were more proactive while conducting general motorized patrol during 5 activities and encounters scattered over 3 rides (or about 1.7 times per ride on average).

Table 6.21, 6.22, and 6.23 provide the amount of time an officer indicates s/he is more proactive by conducting general motorized patrol per shift, per event, and per encounter respectively. Table 6.21[97] shows that, patrol officers spent on average 36.7 minutes per shift conducting higher levels of general motorized patrol during the 3 rides where they explicitly stated they were conducting abnormally high levels of general motorized patrol.

Table 6.22[98] looks at the data from a different perspective: the amount of time per *event*. For the 6 events (out of all activities and encounters) where an officer explicitly stated s/he was changing his/her behavior, s/he spent 22.0 minutes per event on average conducting increased levels of general motorized patrol. Officers also spent 7 minutes in the single activity where the officer explicitly stated s/he was conducting higher than normal levels of general motorized patrol. Since general motorized patrol does not include encounters with citizens, there are no valid cases in Table 6.23.

The descriptive "raw" data supplement the frequency counts and descriptive statistics in Table 6.14 through 6.23 by providing concrete examples of instances when patrol officers become more proactive by conducting more general motorized patrol.

Officers told observers that they usually just found a place to "hide" and listened to music or read, but since the observer was present, they drove around more to find something interesting for the observer to see. Officers openly admitted that they usually did not drive around as much as they did with the observer. One officer unequivocally admitted that he would not have driven around as much if the observer was not present. Another officer said he usually did not drive around as much as he had tonight and he usually found a place to park or just hang out in order to read. A different officer acknowledged that he had not driven this much during a shift in a long time.

More proactive patrol officer behavior: shorter breaks

Patrol officers commented that they usually spent time to sleep during the shift, but, since the observer was present, they would "roll" and tried to find something interesting to get into. In Table 6.14, observers documented that patrol officers altered their break schedule during 2.3% of rides in "ride form reactivity." However, observers' assessments that patrol officers altered their break schedule was based on: (1) "educated guesses" on the part of observers; or (2) explicit statements by patrol officers that they were changing their behavior. Table 6.19 shows a more detailed breakdown of this form of reactivity which includes instances where patrol officers explicitly admitted they took fewer or shorter breaks due to the presence of the observer. This occurred during 1.9% of rides in "ride form reactivity."

The descriptive "raw" data supplement the frequency counts in Table 6.14 and 6.19 by providing concrete examples of how patrol officers took shorter breaks due to the presence of the observer. More specifically, one officer said he liked having someone to talk to and it helped to keep him awake since his body had not adjusted to the hours.

During a different shift, the officer joked about taking naps while on duty because he was dead tired. Another officer said he was looking forward to finding a nice place to sleep since he had a late night last night, but he didn't think the observer would like that. A different officer told the observer toward the end of the shift that she would have slept some during the shift if the observer was not present. She would have laid on her couch at home with the radio next to her ear to listen for calls. Another officer said she would have gone home and slept during the early part of the shift, but felt uncomfortable doing it since the observer was writing about what went on during the day.

More proactive patrol officer behavior: traffic enforcement

While driving around on general patrol, officers tried to keep the observers entertained by running license plates in order to find a stolen car or conducting traffic stops for moving violations (e.g., illegal left turn, running a red light, etc.). The purpose of this section is to discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for how often patrol officers engage in more aggressive traffic enforcement as a result of the presence of the observer.

Table 6.14 gives the percent of rides where an officer reacts to the presence of the observer by conducting more aggressive traffic enforcement. Observers documented that patrol officers were reacting to their presence in this manner in "ride form reactivity", during events within a ride, or during encounters within a ride in .5%, 1.0%, and .7% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events. Patrol officers were less likely to conduct more aggressive traffic enforcement during all

activities and encounters (less than .1%) compared to officer initiated activities and encounters (.1%), all encounters (.1%) and officer initiated encounters (.1%). By cross-referencing Table 6.14 and 6.15, patrol officers were more aggressive in traffic enforcement during 14 activities and encounters scattered over 7 rides (or 2 times per ride on average). Similarly, patrol officers were more proactive during 5 encounters evenly spread over 5 rides.

Tables 6.16, 6.17, and 6.18 detail the amount of time an officer reacts to the presence of the observer by conducting more aggressive traffic enforcement per shift, per event, and per encounter respectively. Table 6.16[99] shows that, for the 7 rides where patrol officers acted more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 18.1 minutes per shift patrolling more aggressively. Patrol officers also engaged in more aggressive traffic enforcement as a chain of at least two events (*reactivity as a chain of events*) in 4 out of the 7 rides.[100] Officers spent less time (10.4 minutes per ride on average) interacting with citizens during encounters while conducting aggressive traffic enforcement triggered by the presence of the observer.

Table 6.17[101] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time aggressively conducting traffic enforcement during all activities and encounters (9.1 minutes per event on average) compared to officer initiated activities and encounters (7.0 minutes per event on average). Table 6.18[102] shows the amount of time per *encounter* where officers are more proactive. Officers spend the same amount of time (10.4 minutes per encounter on average) conducting aggressive traffic enforcement for both all encounters and officer initiated encounters

since there is perfect overlap between these two categories.

Table 6.19 to 6.23 present stronger evidence of reactivity which are a subset of cases from Table 6.14 to 6.18. Table 6.19 to 6.23 list frequency distributions and descriptive statistics for cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). The purpose of this section is to overview instances when officers explicitly stated they were conducting traffic enforcement more aggressively due to the presence of the observer.

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior by conducting more aggressive traffic enforcement. Observers documented that patrol officers were doing so in "ride form reactivity", during events within a ride, or during encounters within a ride in .4%, .6% and .7% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were more likely to explicitly state they were conducting more aggressive traffic enforcement during all encounters (.1%) and officer initiated encounters (.1%) compared to all events (less than .1%) and officer initiated events (less than .1%). By cross-referencing Table 6.19 and 6.20, patrol officers explicitly stated they were aggressively enforcing traffic violations during 6 activities and encounters scattered over 5 rides (or about 1.2 times per ride on average). Similarly, patrol officers explicitly stated they were more aggressive while enforcing traffic violations during 5 encounters evenly distributed over 5 rides.

Table 6.21, 6.22, and 6.23 provide the amount of time an officer explicitly states s/he is conducting more aggressive traffic enforcement per shift, per event, and per

encounter respectively. Table 6.21[103] shows that, for the 6 rides where an officer explicitly stated s/he was conducting more aggressive traffic enforcement during *all* events within a ride (all activities and encounters), the officer spent on average 12.2 minutes doing so over the course of a shift. Officers spent less time (10.4 minutes per shift on average) conducting aggressive traffic enforcement during only encounters with citizens.

Table 6.22[104] looks at the data from a different perspective: the amount of time per *event*. Since patrol officers only conducted aggressive traffic enforcement when free from calls for service, officers spent the same amount of time doing so during all activities and encounters and officer initiated activities and encounters (10.2 minutes per event on average). Table 6.23[105] shows the amount of time per *encounter* where officers explicitly stated they were conducting aggressive traffic enforcement for the benefit of the observer. Similarly, officers spent the same amount of time patrolling more aggressively for all encounters and officer initiated encounters (10.4 minutes per encounter on average).

More proactive patrol officer behavior: the tour

Officers drove around while on general patrol and gave observers a "tour" of the area showing observers the boundaries and important cross-streets of the beat, the downtown business district, several sites where homicides and other serious crimes had taken place, known drug houses, abandoned houses, or upper class homes in the area. Officers took observers on tours of the police facility, the police academy, the gun range, and the communications center.

Patrol officers also showed observers abandoned buildings, trashed houses, and

alligators in a lake. One officer drove to a restaurant on a pier in order to show the observer a restaurant she had recommended earlier in the ride. Another officer showed the observer where he grew up and where he went to school and worked as a teenager.

Officers also conducted "business checks" in a transvestite strip bar, topless bars, and adult bookstores in search of any form of vice (e.g., men masturbating or paying dancers to have sex with them) in order to give observers a feel for the more unseemly aspects of police work.

The remainder of this section will discuss the frequency distributions (in Table 6.14 and 6.15 and Table 6.19 and 6.20) and descriptive statistics (in Table 6.16 to 6.18 and Table 6.21 to 6.23) for how often patrol officers go out of their way to give observers tours of the beat or district under observation.

Table 6.14 gives the percent of rides where an officer reacts to the presence of the observer by conducting tours for the benefit of the observer. Observers documented that patrol officers were reacting to their presence in this manner in "ride form reactivity", during events within a ride, or during encounters within a ride in 1.6%, 2.6%, and .3% of rides respectively.

Table 6.15 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were more likely to give tours during all activities and encounters (.1%) and officer initiated activities and encounters (.1%) compared to all encounters (less than .1%) and officer initiated encounters (less than .1%). This makes intuitive sense within the context of the qualitative data: officers would usually drive around while on general motorized patrol and point out interesting sights to observers. Encounters with citizens were not the norm. By cross-referencing Table 6.14

and 6.15, patrol officers gave tours to observers during 36 activities and encounters scattered over 19 rides (or about 1.9 times per ride on average). Similarly, patrol officers gave tours during 2 encounters within a single ride.

Table 6.16, 6.17, and 6.18 details the amount of time an officer reacts to the presence of the observer by giving tours per shift, per event, and per encounter respectively. Table 6.16[106] shows that, for the 19 rides where patrol officers acted more proactive during *all* events within a ride (all activities and encounters), the officer spent on average 27.4 minutes giving the observer a tour over the course of a shift. Since patrol officers gave tours as a chain of at least two events (*reactivity as a chain of events*) in 8 out of 19 rides[107] (or 42% of these rides), officers spend considerably less time (2 minutes during one encounter within a single ride) giving observers tours during encounters as opposed to the sum of all events during a ride.

Table 6.17[108] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time giving observers tours during all activities and encounters (14.5 minutes per event on average) compared to officer initiated activities and encounters (8.7 minutes per event on average). Table 6.18[109] shows the amount of time per *encounter* where officers are more proactive. Officers spend on average the same amount of time giving tours for all encounters and officer initiated encounters (1.0 minute per encounter on average).

Table 6.19 to 6.23 present stronger evidence of reactivity which are a subset of cases from Table 6.14 to 6.18. Table 6.19 to 6.23 list frequency distributions and descriptive statistics for cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). The purpose

of this section is to overview instances when officers explicitly stated they were changing their behavior by giving observers tours.

Table 6.19 gives the percent of rides where an officer explicitly stated that s/he is changing his/her behavior by giving observers a tour of the area. Observers documented that patrol officers were doing so in "ride form reactivity", during events within a ride, or during encounters within a ride in 1.0%, 1.2% and .1% of rides respectively.

Table 6.20 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were more likely to explicitly state they were conducting tours for observers during all activities and encounters (.1%) and officer initiated activities and encounters (.1%) compared to all encounters (less than .1%) and officer initiated encounters (less than .1%). By cross-referencing Table 6.19 and 6.20, patrol officers explicitly stated they were giving the observer a tour during 20 activities and encounters scattered over 5 rides (or 4 times per ride on average). Similarly, patrol officers explicitly stated they were giving the observer a tour during 2 encounters within the same ride.

Table 6.21, 6.22, and 6.23 provide the amount of time an officer explicitly states s/he is giving the observer a tour per shift, per event, and per encounter respectively. Table 6.21[110] shows that, for the 9 rides where an officer explicitly stated s/he was giving the observer a tour during *all* events within a ride (all activities and encounters), the officer spent on average 33.2 minutes doing so over the course of a shift. Officers spent considerably less time (2.0 minutes per shift on average) giving observers tours during encounters only since patrol officers gave tours as a chain of at least two events (*reactivity as a chain of events*) in 5 out of 9 rides[111] (or about 56% of these rides).

Table 6.22[112] looks at the data from a different perspective: the amount of time per *event*. Patrol officers spent more time giving tours during all activities and encounters (14.9 minutes per event on average) compared to officer initiated activities and encounters (10.5 minutes per event on average). Table 6.23[113] shows the amount of time per *encounter* where officers explicitly stated they were changing their behavior when giving observers tours. Officers spent the same amount of time on average giving tours for all encounters and officer initiated encounters (1.0 minute per encounter on average).

More proactive patrol officer behavior: dispatched calls for service

Although most all cases of proactivity occurred during times when patrol officers were free from supervisor or dispatch assignments, there were a handful of instances (discussed below) where officers became more proactive while responding to calls for service. One officer tried to keep the observer informed during certain calls and made a conscious effort to ask other patrol officers and supervisors on the scene about what was going on during calls for service. The observer felt he would not have been as inclined to ask questions if the observer was not present. Another officer lectured a suspect on the dangers of crack cocaine in part for the observer's benefit. A different officer dusted for prints when responding to a burglary call because "he thought it'd be interesting for the observer to see." One observer felt that a different officer went above and beyond the call of duty while spending a significant amount of time reassuring an elderly lady that she was safe after responding to a burglar alarm call.

Overview of findings: patrol officer is more proactive

Observers were instructed to document the motivations behind more proactive patrol officer behavior. Patrol officers became more proactive because they were overly

friendly and accommodating with observers or were self-conscious about the presence of an observer and worried about making a poor impression. In other words, patrol officers either wanted to entertain observers or patrol officers were worried that observers thought they were lazy. As a result, officers tried to show observers "some action" (almost exclusively when free from calls for service).

The qualitative data also revealed specific behavioral manifestations of more proactive patrol officer behavior. More specifically, patrol officers took observers to interesting non-dispatched calls for service and, overall, patrolled more aggressively by conducting more general motorized patrol, taking shorter breaks, being aggressive when looking for traffic violations, and giving observers tours of the beat or district.

In addition, when patrol officers are more proactive, it is typically not an isolated event: more proactive patrol officer behavior is more likely to be a chain of events. In other words, these are not *stand-alone* events, but part of a chain of events. Observers documented *reactivity as a chain of events* by identifying a chain of at least two events for the most general measure of more proactive patrol officer behavior (*more proactive – all cases*), non-dispatched calls for service, aggressive traffic enforcement, and during tours.

Finally, Table 6.19 to 6.23 shows that patrol officers explicitly admit when they are becoming more proactive. During 8.1% of rides, patrol officers explicitly admit that they are becoming more proactive. In other words, by cross referencing Table 6.19 and 6.14, in 59 out of 114 rides (or about 52% of the time) patrol officers will explicitly admit they are becoming more proactive. Similarly, by cross referencing Table 6.20 and 6.15,

patrol officers explicitly admit they are more proactive during 74 out of 136 events (or about 54% of the time).

Patrol officer is less proactive

Table 6.24 through 6.32 shows a detailed breakdown of the qualitative coding on less proactive patrol officer behavior. The purpose of this section is to discuss the frequency distributions (in Table 6.24 and 6.25 and Table 6.29 and 6.30) and descriptive statistics (in Table 6.26 to 6.28 and Table 6.31 to 6.32) for the most general measure of less proactive police behavior within the qualitative coding (*less proactive – all cases*).

Table 6.24 gives the percent of rides where an officer is less proactive. Patrol officers gave some indication that they were less proactive in 2.7% of rides. Observers documented that patrol officers were less proactive in "ride form reactivity", during events within a ride, or during encounters within a ride in 1.0%, 1.9%, and .6% of rides respectively.

Table 6.25 gives a more detailed breakdown of the frequency of these events. Patrol officers were less likely to become less proactive during all events within a ride (less than .1% of all events) compared to officer initiated events, all encounters, and officer initiated encounters (.1%, .1%, and .1% respectively). By cross-referencing Table 6.24 and 6.25, patrol officers were less proactive during 15 activities and encounters scattered over 14 rides (or about 1.1 times per ride on average). Similarly, patrol officers were less proactive during 4 encounters evenly spread over 4 rides.

Table 6.26, 6.27, and 6.28 document the amount of time an officer indicates s/he is less proactive per shift, per event, and per encounter respectively. Table 6.26[114] shows that, for the 14 rides where patrol officers acted less proactive during *all* events within a

ride (all activities and encounters), the officer spent on average 20.1 minutes acting less proactive over the course of a shift. Officers are spending more than double the time (46.3 minutes per ride on average) acting less proactively during encounters with citizens during the 4 rides where officers give some indication about acting less proactive due to the presence of the observer.

Table 6.27[115] looks at the data from a different perspective: the amount of time per *event*. Officers spent less time acting less proactive during all activities and encounters (18.8 minutes per event on average) compared to officer initiated activities and encounters (19.9 minutes per event on average). Table 6.28[116] shows the amount of time per *encounter* where officers are less proactive. Officers spend less time being more proactive during all encounters (46.3 minutes per encounter on average) compared to officer initiated encounters (49.7 minutes per encounter on average).

Table 6.29 to 6.32 present stronger evidence of reactivity which are a subset of cases from Table 6.24 to 6.28: cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). The purpose of this section is to overview instances when officers explicitly stated they were changing their behavior by being less proactive for the most general measure of less proactive behavior (*less proactive – all cases*).

Table 6.29 gives the percent of rides where an officer explicitly stated that s/he is acting less proactive. Patrol officers explicitly admitted they were acting less proactive in 1.1% of rides. Observers documented that patrol officers admitted they were less proactive in "ride form reactivity" and during events within a ride in .7%, .4% of rides respectively, but documented no valid cases in all encounters within a ride.

Table 6.30 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were equally likely to admit to being less proactive during all events within a ride (less than .1% of all events) and officer initiated events (less than .1% of officer initiated events). By cross-referencing Table 6.29 and 6.30, patrol officers were less proactive during 5 activities and encounters scattered over 4 rides (or about 1.3 times per ride on average).

Table 6.31 and 6.32, document the amount of time an officer indicates s/he is less proactive per shift and per event respectively.[117] Table 6.31[118] shows that, for the 4 rides where patrol officers stated they were acting less proactive during *all* events within a ride (all activities and encounters), the officer spent on average 17.8 minutes per shift doing so.

Table 6.32[119] looks at the data from a different perspective: the amount of time per *event*. Officers spent less time acting less proactive during all activities and encounters (14.2 minutes per event on average) compared to officer initiated activities and encounters (17.5 minutes per event on average).

Why are patrol officers less proactive? Observers as distraction

Observers were instructed to document not only instances when patrol officers acted less proactively, but also the *motivations* behind less proactive behavior on the part of patrol officers. One reason why patrol officers were less proactive was that observers distracted officers. In Table 6.24, observers documented that patrol officers were a distraction in "ride form reactivity" during one out of 729 rides. One observer distracted an officer from his normal routine by engaging him in an interesting conversation. As a result, the officer was so involved with the conversation that he forgot to check for

suspicious vehicles and people like he usually does.

Why are patrol officers less proactive? Concerns about safety

A second reason why patrol officers were less proactive in the presence of observers was due to concerns about safety. One officer felt it was unrealistic for him to act as he normally does because he felt a need to be more cautious with situations he initiated.

Table 6.24 shows that patrol officers gave some indication that they were less proactive due to concerns about safety in "ride form reactivity" and during events within a ride in .1% and .3% of rides respectively.

Table 6.25 gives a more detailed breakdown of the frequency of these events (activities and encounters). Patrol officers were less proactive due to concerns about safety during less than .1% of all activities and encounters and less than .1% of officer initiated activities and encounters. By cross-referencing Table 6.24 and 6.25, patrol officers were less proactive during 3 activities and encounters scattered over 2 rides (or about 1.5 times per ride on average). Patrol officers did not express concerns about safety during encounters with citizens.

Table 6.26, 6.27, and 6.28 document the amount of time an officer indicates s/he is less proactive due to concerns about safety per shift, per event, and per encounter respectively. Table 6.26[120] shows that, for the 14 rides where patrol officers acted less proactive due to concerns about safety during *all* events within a ride (all activities and encounters), the officer spent on average 17.0 minutes per shift doing so.

Table 6.27[121] looks at the data from a different perspective: the amount of time per *event*. Officers spent less time expressing concerns about safety during all activities

and encounters (11.3 minutes per event on average) compared to officer initiated activities and encounters (16.5 minutes per event on average). Patrol officers also never explicitly stated they were acting less proactive due to concerns about safety (see Table 6.29 to 6.32).

Why are patrol officers less proactive? Self-consciousness

Some patrol officers were reluctant to act and tentative in their decision making due to the presence of the observer. For example, one officer was uncomfortable arresting suspects in the presence of an observer because he felt the observer thought he was "cold-hearted." During another ride, other patrol officers were uncomfortable when the observer witnessed use of force against citizens. The officer under observation responded to a call for service to show the observer some action, but left abruptly when other officers on the scene were using force against citizens. Presumably, under normal circumstances, the officer would not have left so abruptly.

Table 6.24 gives the percent of rides where an officer acts self-conscious. Observers documented that patrol officers were self-conscious in this manner in "ride form reactivity", during events within a ride, or during encounters within a ride in .1%, .4%, and .1% of rides respectively.

Table 6.25 gives a more detailed breakdown of the frequency of these events. Patrol officers acted self-conscious and less proactive during less than .1% of all events, officer initiated events, all encounters, and officer initiated encounters. By cross-referencing Table 6.24 and 6.25, patrol officers were less proactive due to self-consciousness during 3 activities and encounters evenly spread over 3 rides. Similarly,

patrol officers were self-conscious and less proactive during 1 encounter during the same ride.

Table 6.26, 6.27, and 6.28 document the amount of time an officer indicates s/he is less proactive due to self-consciousness per shift, per event, and per encounter respectively. Table 6.26[122] shows that, for the 3 rides where patrol officers acted self-conscious, the officer spent on average 34.7 minutes per shift acting less proactive during *all* events within a ride (all activities and encounters). One patrol officer also spent 83 minutes during all encounters within a shift acting self-conscious.

Table 6.27[123] looks at the data from a different perspective: the amount of time per *event*. Officers spent 34.7 minutes per event on average during all activities and encounters and officer initiated activities and encounters since there is perfect overlap between the two categories. Similarly, in Table 6.28[124], patrol officers spent 83 minutes in one encounter acting less proactive due to self-consciousness for both all encounters and officer initiated encounters. Patrol officers also never explicitly stated they were acting less proactive due to self-consciousness during events within a ride (see Table 6.29 to 6.32).

Less proactive patrol officer behavior: Less aggressive patrol

The common theme that connects less proactive patrol officer behavior is less aggressive patrol. Patrol officers attempted to either avoid or shield observers from certain aspects of police work. In Table 6.24, observers documented in "ride form reactivity" that patrol officers indicated they were patrolling less aggressively during .5% of rides (4 rides out of 729) due to their presence. In Table 6.29, officers explicitly stated that they were patrolling less aggressively in .4% of rides (3 out of 729 rides).

The next two sections will focus on two aspects of police work that patrol officers attempt to shield or avoid while in the presence of observers: (a) vehicle pursuit; and (c) use of force or arrest. The third and fourth sections will discuss the means to achieve this end. In other words, patrol officers avoid dangerous aspects of police work by: (a) engaging in administrative busy work within the stationhouse; (b) increasing levels of general motorized patrol, and (c) contacting dispatchers to have them screen out dangerous calls for service.

Less proactive patrol officer behavior: Vehicle pursuit

Patrol officers stopped pursuing a fleeing vehicle when they realized how potentially dangerous the situation was. Even though one officer instinctively turned on the sirens and pursued a fleeing vehicle, the officer did not pass the van to pull it over since he had an observer with him.

Table 6.24 gives the percent of rides where an officer is less likely to conduct vehicle pursuit while in the presence of the observer. Observers documented that patrol officers were less likely to pursue a fleeing vehicle during events within a ride in .3% of rides.

Table 6.25 gives a more detailed breakdown of the frequency of these events. Table 6.25 shows that patrol officers are equally likely to prematurely terminate a vehicle pursuit during less than .1% all events and officer initiated events. However, these incidents did not include encounters with citizens. By cross-referencing Table 6.24 and 6.25, patrol officers stopped pursuing fleeing vehicles due to the presence of the observer were less proactive during 3 activities scattered over 2 rides.

Table 6.26, 6.27, and 6.28 document the amount of time an officer indicates s/he is cutting short a vehicle pursuit due to the presence of the observer per shift, per event, and per encounter respectively. Table 6.26[125] shows that, for the 2 rides where patrol officers cut short the pursuit of a fleeing vehicle, the officer averaged 17.0 minutes per shift on average during *all* events over the course of the ride.

Table 6.27[126] looks at the data from a different perspective: the amount of time per *event*. Officers spent more time pursuing fleeing vehicles during officer initiated activities and encounters (16.5 minutes per event on average) compared to all activities and encounters (11.3 minutes per event on average).

Table 6.29 to 6.32 present stronger evidence of reactivity which are, in this case, the identical cases from Table 6.24 to 6.28: cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*). In other words, the frequency distributions, cases, and descriptive statistics for Table 6.29 to 6.32 are identical to those in Table 6.24 to 6.28 which have been discussed above.

Less proactive patrol officer behavior: Use of force or arrest

In Table 6.24, observers documented that patrol officers were more tentative when observing or participating in use of force against citizens or when arresting citizens during events within a ride and during encounters within a ride in .4%, and .3% of rides respectively.

Table 6.25 gives a more detailed breakdown of the frequency of these events. Patrol officers were more likely to become tentative in use of force or arrest during officer initiated encounters less proactive (.1% of officer initiated encounters) compared to all

activities and encounters, officer initiated activities and encounters, and all encounters (less than .1%, less than .1%, and less than .1% respectively). By cross-referencing Table 6.24 and 6.25, patrol officers were less aggressive when using force or arresting citizens during 3 activities and encounters evenly distributed over 3 rides. Similarly, patrol officers were tentative in these situations during 2 encounters evenly spread over 2 rides.

Table 6.26, 6.27, and 6.28 document the amount of time an officer indicates s/he is tentative using force or arresting citizens per shift, per event, and per encounter respectively. Table 6.26[127] shows that the officer spent less time (48.0 minutes per shift on average) acting tentative when using force or arresting citizens during *all* events within a ride (all activities and encounters) compared to all encounters (62.0 minutes per shift).

Table 6.27[128] looks at the data from a different perspective: the amount of time per *event*. Officers spend the same amount of time (48.0 minutes per event on average) during all activities and encounters and officer initiated activities and encounters acting tentatively when using force or arresting citizens since there is perfect overlap between these two categories of events. Similarly, in Table 6.28,[129] officers spend the same amount of time (62.0 minutes per encounter on average) during all encounters and officer initiated encounters acting tentative when using force or arresting citizens.

Table 6.29 to 6.32 present stronger evidence of reactivity which are a subset of cases from Table 6.24 to 6.28: cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*).

In Table 6.29, observers documented that patrol officers explicitly stated they were more tentative when using force or arresting citizens during events within a ride in 1

out of 729 rides. Table 6.30 gives a more detailed breakdown of the frequency of these events. Patrol officers explicitly stated the presence of the observer changed their behavior during incidents of use of force or arrest less than .1% of the time for both all events and officer initiated events. Since there are no valid cases for all encounters and officer initiated encounters, the patrol officer admitted s/he changed his/her behavior during one officer initiated activity. In other words, the patrol officer was voluntarily watching an incident of use of force and then abruptly decided to leave the scene due to the presence of the observer without interacting with citizen participants in a meaningful way.

Table 6.31 and 6.32, document the amount of time an officer indicates s/he is less proactive per shift and per event respectively.[130] By cross referencing Table 6.31[131] and Table 6.32,[132] the officer, on his/her own initiative, spent 20 minutes watching a single incident of use of force during a ride before deciding to abruptly leave the scene.

The descriptive "raw" data supplement the frequency counts and descriptive data reviewed above by specifying concrete examples of how officers changed their behavior during incidents of use of force or arrest. More specifically, when three officers kicked in a door to apprehend a suspect in a hit and run, one officer tried to close the door in the observer's face. Since the officers were busy trying to subdue the suspect, the observer was able to see the three officers gang tackle, pepper spray, and then slam the suspect against a table hard enough to cause some of his teeth to fly across the room. A sergeant "roughed up" the suspect a bit by shoving him around and threatening him while other officers talked to the observer to convince her "she didn't see anything" or to explain why officers do things like this.

Patrol officers also demonstrated more control over their emotions when using force against citizens due to the presence of the observer. For example, one sergeant handcuffed a suspect and screamed "if you lie to me motherfucker, I'm going to kick your ass." The sergeant began pulling his arms (which were handcuffed behind his body) up hard. The suspect cried out in pain and began giving the officers information. However, when the sergeant saw the observer over his shoulder, he gained some control over his emotions and continued to threaten the suspect without using any additional force. During another ride, one officer also stated he was uncomfortable arresting suspects in the presence of an observer because he felt the observer thought he was "cold-hearted."

Less proactive patrol officer behavior: Administrative busy work and general motorized patrol

As noted above, less proactive patrol officers patrol less aggressively. One part of less aggressive patrol was discussed in the previous two sections: sheltering observers from dangerous and/or uncomfortable situations such as vehicle pursuits or use of force. The purpose of this section is to discuss another aspect of less aggressive patrol: keeping the observer away from embarrassing or potentially harmful situations by engaging in administrative busy work or higher levels of general motorized patrol. One patrol officer conducted did a lot of MDT (mobile data terminal) checks on people over the course of the shift. The observer coded this event within a ride as less proactive patrol officer behavior. Observers also coded several instances general motorized patrol as less proactive patrol officer behavior.

Tables 6.24 through 6.32 show a detailed breakdown of the qualitative coding on general motorized patrol and administrative busy work which has been categorized by

observers as less proactive patrol officer behavior. In Table 6.24, observers documented that the patrol officer conducted less proactive general motorized patrol during .1% (or 1 out of 729) of rides. Tables 6.26 and 6.27 show that patrol officers were engaging in one instance of general motorized patrol for a 6 minute period during a single shift. Tables 6.29 to 6.32 show that patrol officers did not explicitly state they were acting less proactively during this instance of general motorized patrol.

Table 6.24 also shows that patrol officers engaged in less proactive administrative busy work in .3% of rides. Officers spent less than .1% of officer initiated activities[133] conducting this type of activity (see Table 6.25), which took on average 13.5 minutes per shift (see Table 6.26) and an identical 13.5 minutes per event (see Table 6.27).

Table 6.29 shows that patrol officers explicitly admitted they were being less proactive by doing administrative busy work in .1% of rides. Observers conducted less proactive administrative busy work on their own initiative during less than .1% of officer initiated activities[134] (or one event out of 18,889) which took on average 17.0 minutes per shift (see Table 6.31) and an identical 17.0 minutes per event (see Table 6.32).

Less proactive patrol officer behavior: Dispatchers screen dangerous calls for service

Less proactive patrol officer behavior centers around trying to avoid or shelter observers from dangerous or embarrassing situations. The previous sections have focused on how patrol officers changed their behavior due to the presence of the observer. However, this section will focus on how dispatchers can change patrol behavior. More specifically, some patrol officers in St. Petersburg claimed that dispatchers screened calls and avoided giving officers obviously dangerous calls for service. These officers claimed

that dispatchers screened calls in order to avoid assigning officers with observers to obviously dangerous situations.

Tables 6.24 shows that observers documented that patrol officers claimed that dispatchers screened dangerous calls for service within "ride form reactivity" and events within a ride in .3% and .7% of rides respectively. Table 6.25 shows that dispatchers screened dangerous calls for service for less than .1% of all events and officer initiated events within a ride. By cross referencing Table 6.24 and 6.25, dispatchers were allegedly screening calls for service during 5 activities evenly distributed over 5 rides. Since there was only one activity per shift, Table 6.26 and 6.27 show that patrol officers spent an identical 2.2 minutes per shift and per event on average informing dispatch that they had a rider.

Tables 6.29 show that observers documented that patrol officers explicitly stated that dispatchers were screening out dangerous calls due to the presence of the observer within "ride form reactivity" and during events within a ride in .3% and .1% of rides respectively. Table 6.30 shows that patrol officers contacted dispatch to screen dangerous calls for 1 out of 35,431 activities and encounters. Table 6.31 and 6.32 shows that this single instance of less proactive patrol officer behavior took 1.0 minutes per shift and per event respectively on average.

Overview of findings: patrol officer is less proactive

Patrol officers indicated that they were less proactive during 2.7% of rides. Observers were instructed to document the motivations behind in addition to behavioral manifestations of less proactive patrol officer behavior. In short, patrol officers became less proactive because they were either: (1) distracted by the presence of the observer; (2)

self-conscious about the presence of the observer; or (3) concerned about the safety of the observer. Overall, these patrol officers patrolled less aggressively and attempted to avoid dangerous situations. More specific behavioral manifestations of less proactive patrol officer behavior include: (1) reluctance to pursue fleeing vehicles; (2) feeling uncomfortable or avoiding using force or arresting citizens; (3) engaging in administrative busy work or higher than normal levels of general motorized patrol in an attempt to stay out of trouble; (4) contacting dispatchers in order to screen out dangerous calls for service.

Finally, Table 6.29 to 6.32 shows that patrol officers explicitly admit when they are becoming less proactive. During 1.1% of rides, patrol officers explicitly admit that they are becoming less proactive. In other words, by cross referencing Table 6.29 and 6.24, in 8 out of 20 rides (or about 40% of the time) patrol officers will explicitly admit they are becoming less proactive. Similarly, by cross referencing Table 6.30 and 6.25, patrol officers explicitly admit they are less proactive during 5 out of 15 events within a ride.

Time in the field

The previous discussion of social cues related to reactivity and behavioral consequences of reactivity has described reactivity as a static concept. Based on the previous sections, the effects of reactivity appear to be constant over time. The purpose of this section is to describe how the passage of time (time in the field) produces changes in patrol officer behavior over the course of fieldwork. These behavioral changes could differentially affect the impact of reactivity during observational studies of police over the course of fieldwork.

Table 6.33 and 6.34 show the detailed breakdown of the qualitative coding on time in the field. Table 6.33 shows the percent of rides where the patrol officer indicates that his/her behavior changes over time. Patrol officers give some indication that their behavior is changing over time during 16.9% of rides. Observers documented that the patrol officer's behavior changed over time in "ride form reactivity" and during events within a ride for 16.9% and .1% of rides respectively.[135]

Table 6.34 shows that patrol officers indicated they changed their behavior over time in less than .1% of all events and officer initiated events within a ride. By cross-referencing Table 6.33 and 6.34, patrol officers changed their behavior over time during 6 activities within the same ride.

The descriptive "raw" data supplement the frequency counts by providing concrete examples of how patrol officer's behavior changed over time. More specifically, observers made self-conscious patrol officers feel more at ease taking breaks and running errands by decreasing the frequency with which they took notes or by humoring the officer by laughing at humorless jokes and showing tolerance for the officer's intolerance for others. One officer asked early in the ride if the observer was going to document how long he was at the bank. After the observer explained the officer would not be identified in his notes, the officer felt much more comfortable. Overall, officers became less defensive about their actions and felt more comfortable with the presence of observers over time.

Even officers who were extremely angry at the beginning of the shift almost invariably became more friendly and warmed up to observers as the ride went on. POPN quantitative data contains coded data which addresses this issue. Observers input coded

data on the patrol officer's attitude toward the observer for the first and last half hour of the shift. Observers were given behavioral criteria to rank an officer's attitude toward them on a 5-point scale from very negative to very positive.[136] These two coded items provide an assessment of how an officer's attitude toward the observer changes over the course of a shift.

Table 6.35 shows the patrol officer's attitude toward the observer for the first and last half hour of the shift. By comparing the frequency distributions for the officer's attitude toward the observer for the first and last half hour of the shift, patrol officers' attitudes tended to become less negative and more positive over the course of the shift. For example, officers were over 6.4 times more likely to have either very negative or negative attitudes toward the observer for the first half hour of the shift compared to attitudes by the last half hour of the shift (11.6% versus 1.8% respectively). Similarly, 63.9% of officer had either very positive or positive attitudes toward having an observer at the beginning of the shift, but 83.2% of officers had very positive or positive attitudes toward the observer by the end of the shift.[137]

At times, observers could "break the ice" and put officers in a good mood. One observer started a conversation with an officer that totally changed his mood. The officer admitted later in the ride that he asked the lieutenant to reassign the observer, but he would not do it. He was planning on keeping quiet and not talking all night, but the observer made him laugh and he started having fun. Another observer felt unwelcome until he asked the officer a serious question: should I become a police officer? The patrol officer then became very friendly and eagerly talked about his vast policing experiences. When an officer was angry because he did not get advanced notice about having a rider,

the observer said, "I realize you weren't prepared to have me along. I'm a little surprised myself." This got the officer talking and, by mid shift, he was speaking very freely.

One officer was visibly upset when the sergeant announced that he had a rider. The officer cursed about the rider to other officers, told one officer to "fuck off" at roll call, and said virtually nothing to the observer until they were in the cruiser. However, the officer ended up being very friendly by the end of the shift, purchased the observer's dinner, and said he looked forward to seeing the observer again. Another officer quietly raged at his supervisor when he was told he had an observer because he had made plans to work on his racecar. The officer stood outside his car and told the observer in detail about why he doesn't like riders. He also drove slowly out of the parking lot to see if the lieutenant would change his mind and switch the observer to another officer. However, the officer stopped at a downtown garage to show the observer where he stores his racecar. The officer admitted that he had a race coming up and needed to work on it.

Time in the field and patrol officer behavior

The qualitative data revealed that anger and self-consciousness in patrol officers dissipated over time. For some officers, it only took a few minutes. By the time the observer and officer had reached the car, the officer had apologized for his/her behavior. At other times, the officer gave the observer the "cold shoulder" and did not talk for the first 15 minutes to hour of the shift, but afterward opened up and became more comfortable with the presence of an observer. Table 6.33 shows that observers documented intraride changes in patrol officer behavior in "ride form reactivity" and during events within a ride for 13.0% and .1% of rides respectively. Table 6.34 reveals that patrol officers indicated they were changing their behavior over the course of a ride

during less than .1% of all events and officer initiated events. By cross-referencing Table 6.33 and 6.34, these 6 activities (out of 35,431) also occurred during a single ride.

For other officers, it took several rides for the officer to warm up and become more comfortable with the presence of an observer. Table 6.33 shows that observers documented interride changes in patrol officer behavior in "ride form reactivity" during 3.8% of rides.

The descriptive "raw" data supplement the frequency counts by providing concrete examples of how patrol officer's behavior between rides (interride). More specifically, one officer was visibly more relaxed, carried himself less "stiffly," and was more playful during the later part of the second ride. One observer noticed that the officer was more likely to run personal errands on the second ride as opposed to his first ride with the officer. Another observer noticed that the officer did less "busy work" compared to previous rides once the observer took more mental notes. One officer made the observer feel unwelcome during the first ride, but approached the observer and shook his hand during roll call at the start of the second ride. This officer asked if the observer was going to ride with him and was very helpful and friendly during the entire ride. Another officer said he was not doing anything today because he had riders on previous days and did a lot. He implied that he had kept busy for their benefit, but was too tired to continue doing it.

Overview of findings: time in the field

Patrol officers indicated that they changed their behavior over time. Even angry or self-conscious patrol officers eventually warmed up to the observer, became more relaxed, ran more personal errands, and did less work over time. These behavioral

changes (e.g., personal errands, less work) took place at two different units of analysis. First, there are *intraride* changes which take place over the first 15 minutes to hour of the shift. Second, there are *interride* changes which occur over the course of several rides. Thus, analyses of reactivity should take into account both of these units of analysis in order to accurately measure the full impact of reactivity in observational studies of police. Quantitative analyses of time in the field will look at a variety of time related variables such as: (1) number of times an officer rides with the *same* observer; (2) number of times an officer rides with *any* observer; and (3) categorical and continuous measures of the number of days of fieldwork.

Summary and conclusion

An in-depth review of POPN qualitative data revealed that reactivity is often embedded within social exchanges which include: (1) social cues from patrol officers; (2) observer behavior; and (3) other factors (supervisors and dispatchers) (see Table 6.36 for an overview). The remainder of this section will highlight several findings of interest.

Finding #1: The level of reactivity in POPN qualitative observational data depends on the level of specificity of the data.

Observers took advantage of the open ended data collection of qualitative data and incorporated stray comments made by patrol officers over the course of a ride to improve our understanding of the social context of reactivity. Figure 6.37 and 6.38 compare the prevalence of the most common themes within POPN qualitative data as a percent of rides and percent of events within rides. These two tables reflect observational data on reactivity from two different units of analysis: the ride or shift level and the event level. These two tables tell two different stories about the level of reactivity within a large-scale

observational study of police. For example, Figure 6.37 shows that observers document that patrol officers are more proactive in 15.6% of rides. However, observers document more proactive police behavior as *specific events within rides* during only .4% of all events (activities and encounters). In short, part of the (large) absolute difference in "ride level reactivity" and "activities and encounters with reactivity" for more proactive patrol officer behavior represents the effects of aggregation of measures of reactivity at the event level to the ride or shift level.

Figure 6.38 shows the most common themes in the qualitative data as a percent of events. Three of the most common themes are more proactive police behavior (.4% of all events), observers helping patrol officers (.3% of all events), and self-consciousness (.3% of all events. More proactive police behavior and observers helping patrol officers was documented for each event within a ride. In contrast, self-consciousness was not explicitly highlighted either within the field research literature or during observer training. However, the open-ended nature of the documentation of qualitative data on reactivity revealed that patrol officers acted self-conscious during specific events within a ride when arresting citizens, using force (or witnessing use of force) against citizens, and taking breaks and running errands in the presence of the observer.

Finding #2: Observers took advantage of the open ended nature of data collection of qualitative data. They incorporated stray comments made by patrol officers over the course of a ride and improved our understanding of both behavioral consequences of reactivity and the social context of reactivity.

Observers did not just document reactivity narrowly and focus exclusively on behavioral change. Instead, observers also recorded *why* officers reacted to their presence. For example, patrol officers were more proactive because they were either

showing off for observers or self-conscious about their presence. In addition, the open ended nature of data collection allowed observers to extend our knowledge about the social dynamics of reactivity by recording aspects of reactivity not discussed within the literature. For example, self-consciousness was not the focus of either the training before fieldwork or a prevalent theme in the qualitative fieldwork literature. However, it is the second most common theme as both a percent of rides and a percent of events within rides (see Table 6.36 and 6.37 respectively) documented as reactivity.

Finding #3: Patrol officers will explicitly stated when and why they are changing their behavior during 26.7% of rides.

Patrol officers openly admitted that they were not comfortable with the fact that observers were documenting when officers used force against citizens or how much time they spent taking breaks or running errands. Officers were willing to admit that they had to rearrange their plans and postpone running personal errands due to the presence of an observer. Officers also often cued the observer when they were changing their behavior. For example, some officers admitted that they wanted to show the observers "something interesting" and went out of their way to "show the observer some action" before trying to stir up some trouble for the observer's benefit.

Finding #4: Not all officers were comfortable with the presence of an observer.

Officers expressed their discomfort by becoming angry or self-conscious about observers taking notes. Others expressed concerns about the safety of the observer.

Finding #5: During 42.4% of rides, officers indicated they were at ease with observers.

The most common theme within the qualitative data was that officers were at ease with the presence of observers. Officers enjoyed having someone to talk to, were very friendly and were eager to show observers exciting aspects of police work. One outgrowth of the trust and rapport between observers and patrol officers was that officers often asked if there was anything special the observer wanted to see or asked if there was anything they could show the observer. POPN qualitative data reveal that the most common reason why patrol officers become more proactive is because they are showing off for the benefit of observers (see Table 6.14). Thus, when free from calls for service, officers took observers to gruesome crime scenes, conducted traffic stops, or served felony warrants in order to keep the observer entertained.

Finding #6: The causes of reactivity extend beyond the patrol officer. Observers also caused reactivity during 10.7% of rides.

Citizens occasionally mistook observers for a law enforcement officer during encounters, but, with two exceptions, these cases of mistaken identity were quickly cleared up by the patrol officer.[138] In other cases, observers acted as a catalyst for practical jokes or excessive conversation during encounters and at other times. The most serious problem occurred when observers helped patrol officers with police work. Observers offered advice, subdued violent suspects, prevented suspects from fleeing, pointed out overlooked drugs in a search of a motel room, and directly assisted in arrests. In short, when observers help patrol officers arrest or detain suspects, this alters the course of events and sets off a chain of events that were triggered by the assistance of the observer. In other words, when observers help patrol officers arrest or detain suspects, it is typically not an isolated event within a ride. Help from observers significantly altered

patrol officer behavior and caused *reactivity as a chain of events*. Similarly, some forms of more proactive police behavior did not occur as an isolated instance, but as a chain of events.

Finding #7: The causes of reactivity extend beyond just the observer and the patrol officer. Supervisors and dispatchers can also indirectly affect patrol officer behavior.

In a handful of cases, observers documented that supervisors switched officer assignments around at the last second if one officer did not want a rider while another did not mind having a rider. Estimates of reactivity could be underestimated and would be a sampling artifact if patrol officers who are most likely to react to the presence of an observer are making deals with supervisors and systematically avoiding observation. POPN observational data could be drawn from a skewed sample of patrol officers giving a skewed picture of what patrol officers do and how they do it. On a similar note, supervisors could be placing observers with very active patrol officers. This could distort the distribution of patrol officer behavior if more active patrol officers are oversampled. Finally, comments from patrol officers suggests that dispatchers were screening calls in order to keep observers safe. Dispatchers could influence the types of calls that observers are able to witness and limit observers from observing police behavior during dangerous situations.

Finding #8: Patrol officers attempted to avoid observation.

Some patrol officers insisted on having notice before having an observer and then did everything in their power to avoid having an observer (e.g., put in for days off or made deals with supervisors). A pattern of avoidance of observation could undermine the

representativeness of the sample of patrol officers under observation. In short, POPN observational data could be giving a skewed picture of what patrol officers do and how they do it.

Finding #9: Patrol officers were more likely to become more proactive (as opposed to less proactive) when accompanied by an observer.

The field research literature is split about the effects of reactivity on patrol officer behavior. Either police officers will attempt to shelter observers from certain aspects of police behavior (and become less proactive), or police officers will "show off" in front of observers, increase their activity level, and become more proactive. By comparing the ratio of percent rides, patrol officers are 5.8 times more likely to be more proactive. However, when comparing the ratio of percent events, patrol officers are 10.5 times more likely to be more proactive.

Finding #10: Over time, patrol officers gradually adjusted to the presence of the observer.

Anger and self-consciousness in patrol officers dissipated over time. For some officers, it only took a few minutes. At other times, the officer gave the observer the "cold shoulder" and did not talk for the first 15 minutes to hour of the shift, but afterward opened up and became more comfortable with the presence of an observer. For other officers, it took several rides for the officer to warm up and become more comfortable with the presence of an observer. Analyses of reactivity should take into account both *intraride* and *interride* variation in patrol officer behavior in order to accurately measure the impact of reactivity in observational studies of police.

Finding #11: This analysis of POPN qualitative data is groundbreaking for a number of reasons.

- Discussions of reactivity within the literature almost exclusively focus on how *patrol officers* react to the presence of observers, but none have shown how *observers* can be a catalyst for reactivity.
- This is the first systematic evidence that larger organizational factors (i.e., dispatchers and supervisors) outside of observers and patrol officers can cause reactivity in observational studies of police.
- Typical discussions of reactivity focus on how patrol officers react to the presence of an observer, but none have discussed how patrol officers could systematically avoid observation and how this could impact the quality of police observational data.

CHAPTER SEVEN: The impact of reactivity on patrol officer arrest behavior and use of force: multivariate analyses

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Overview of multivariate analyses: patrol officer arrest behavior and use of force

Chapter 6 utilized descriptive data from POPN to describe reactivity as a social process which included behavioral and verbal cues from patrol officers. The descriptive data in Chapter 5 were also coded to document the prevalence or frequency of both social cues which suggested that officers were reacting to the presence of the observer and systematically changing their behavior. Chapter 3 and Chapter 4 reviewed the field research literature to identify factors which could trigger reactivity during observational studies of police (e.g., observer sex, status congruency, and time in the field).

The purpose of the next three chapters is to see if the qualitative coding (selected themes within the qualitative data) or the quantitative factors specified by field researchers have a systematic effect on police observational data as a whole. In other words, is reactivity an isolated instance or a systematic bias within the larger POPN data set? Multivariate analyses will be conducted to determine if, for example, observer sex is a significant predictor of patrol officer arrest behavior net of the effects of control variables entered into a multivariate equation. The multivariate analyses will focus on interpreting variation in observational data due to the qualitative coding, observer sex, status congruency, or the passage of time net of the effects of more traditional explanations of police behavior, i.e., situational factors which have been used as

explanatory and control variables in multivariate analyses of police arrest behavior and police use of force (see Sherman 1980; Worden 1989; Smith and Visher 1981 for an overview). A pattern of significant findings will be interpreted as a pattern of systematic bias with POPN observational data.

Variable description

The decision to arrest and use of force

This chapter will examine the decision to arrest and the decision to use force against suspects during non-traffic related encounters.[139] Table 7.1 contains a description (and descriptive statistics) for the two dependent variables used in this analysis: arrest and use of force. Citizens were considered "under arrest" if s/he was taken into custody when being charged with a criminal offense. For example, if an officer explicitly stated that a citizen was under arrest, handcuffed the citizen, and/or stated that the citizen was not free to leave, observers coded that the citizen was under arrest. In addition, the citizen needed to be in custody at the end of the encounter. For example, if the citizen was taken into custody and handcuffed at the beginning of the encounter, but set free at the end of the encounter, then the citizen was not coded as being under arrest.

Observers also documented when patrol officers used force against citizens. For each citizen, observers documented the level of force that patrol officers employed. A three category ordinal variable was constructed in order to specify three levels of force used against suspects (see Table 7.1 for a description of the coding). Patrol officers either: (a) used no force or verbally threatened to use physical force against suspects; (b) restrained suspects using nonpain compliance holds; or (c) restrained citizens using pain compliance holds or physically struck the suspect with either their fists, feet, or some type

of weapon (e.g., baton, mace, taser, or drew and fired their firearm). Instances where officers handcuffed suspects were not included in this measure of use of force in order to more clearly differentiate more non-routine instances of use of force against suspects from the more routine occurrence of handcuffing which is often the only form of "force" used against suspects.

Qualitative coding: interpreting descriptive statistics

Table 7.1 also shows the variable description and descriptive statistics for selected themes from the qualitative coding. For example, *self-conscious (all cases)* is a dichotomous variable that indicates whether the patrol officer gave any indication s/he was self-conscious over the course of the ride.[140] If the encounter (or citizen contact) occurred during a ride where the patrol officer indicated s/he was self-conscious, then this variable was coded "1". The interpretation of the mean of this variable is: during 22% of nontraffic related contacts with suspects, observers documented that patrol officers acted self-conscious over the course of the ride. Similarly, observers documented that patrol officers acted self-conscious about a specific type of police behavior (use of force) during about 1% of nontraffic related contacts with suspects at some point over the course of the shift (see *self-conscious about use of force*).

Self-conscious

Two aspects of the qualitative coding on self-consciousness are included in the analysis of use of force and patrol officer arrest behavior. The "raw" descriptive data suggested that, at times, patrol officers were uncomfortable with the presence of the observer. *Self-conscious (all cases)* included any and all indications from patrol officers that they were uncomfortable with the presence of the observer, while *self-conscious*

about use of force is a subset of rides where patrol officers indicated they were uncomfortable with observers witnessing instances of use of force (see Chapter 5 for a more in-depth discussion of the descriptive data associated with these two themes). Another theme within the raw descriptive data suggested that self-conscious patrol officers felt uncomfortable exercising their discretion in the presence of the observer since they feared that observers were there to evaluate their behavior. As a result, I hypothesize that self conscious patrol officers (*self-conscious (all cases) and self-conscious about use of force*) will be less likely to arrest and use force against suspects.

Safety

During about 10% of nontraffic related contacts with suspects, patrol officers expressed a concern about safety at some point over the course of the shift. For example, they told observers to stay in the car when involved in traffic stops or when involved in other potentially dangerous situations (e.g., searching the perimeter of a warehouse after being dispatched to a burglary in progress). Since any interaction with a suspect is a potentially dangerous situation, I hypothesize that officers concerned about safety (*safety – all cases*) would act more lenient toward suspects in order to avoid a potentially violent confrontation. As a result, they would be less likely to arrest or use force against suspects.

At ease

The most common theme in the qualitative data was that patrol officers felt very comfortable or at ease with the presence of the observer. For example, patrol officers shared their personal problems with observers and shared explicitly details about their sex lives with observers. In 43% of nontraffic related contacts with suspects (*at ease - all*

cases), patrol officers indicated they were at ease with the presence of the observer. *Dark side of policing* is a subset of cases where officers engaged in or discussed illegal or improper police behavior.

The field research literature suggests that establishing rapport and setting research subjects *at ease* is a major hurdle during the early stages of field research. These researchers suggest that reactivity is triggered and/or exacerbated by suspicion, self-consciousness, and paranoia about strangers. As a result, indications that patrol officers were at ease could be considered a factor that mitigates against reactivity since patrol officers acted very open and comfortable with the presence of the observer. I hypothesize that patrol officers who are *at ease* will be eager and anxious to show observers exciting aspects of patrol work. As a result, observers will be more likely to observe patrol officers arresting and using force against suspects.

Change dynamic

Another theme within the qualitative data was how observers could "change the dynamic" of police-citizen. During about 7% of nontraffic related citizen contacts with suspects, observers became the focal point of the encounter over the course of the shift. The most common manifestation of *change dynamic (all cases)* was very brief and easily correctable cases of mistaken identity (i.e., citizens asked officers or the observer if the observer was a police officer). However, there were a few cases where the observer became a lightning rod and caused citizens to become furious about the presence of an outsider/stranger. Although the qualitative data showed that observers (on occasion) became the focal point of encounters, the effect of the presence of the observer on patrol officer arrest and use of force behavior is unclear. On the one hand, most cases of *change*

dynamic (all cases) were very brief cases of mistaken identity. Also, within the context of an entire encounter with a suspect, these exchanges were short and uneventful. On the other hand, there were cases where the presence of the observer triggered an angry response from a citizen that could have resulted in arrest. As a result, I hypothesize that during rides where the observer becomes the focal point in an encounter (*change dynamic – all cases*), the officer is more likely to arrest and more likely to use force against suspects.

Observers help officer

Reactivity can be viewed as a tradeoff between: (1) drawing a clear line in the sand and stating that observers will not help patrol officers since it will contaminate the observational data; and (2) helping officers in little tasks as a way of showing a sense of "teamwork" in an effort to make the officer feel more comfortable with the presence of the observer. During a semester-long training course, observers were instructed to use their judgment, but to help patrol officers if: (1) the patrol officer was in danger; or (2) if helping the officer in more minor aspects of police work would either establish or strengthen rapport and set the officer at ease. The concern was that if observers unilaterally refused to help patrol officers in any way, patrol officers would have felt far more uneasy with their presence and more inclined to change their behavior as a consequence.

The qualitative data showed that observers helped officers over the course of the shift in some capacity during 12% of nontraffic related contacts with suspects (*observer helps officer - all cases*). *Observer helps officer (all cases)* can also be disaggregated into two components. First, observers helped patrol officers with police work (*observer helps*

officer with police work) during 9% of nontraffic related contacts with suspects. Second, observers helped patrol officers arrest the suspect (*observer helps officer with arrest*) during 3% of nontraffic related contacts with suspects. Comments from patrol officers suggested that some patrol officers treated observers more like partners rather than civilian riders. I hypothesize that when observers help patrol officers, patrol officers would feel more comfortable arresting and using force against suspects since they have a "partner" as backup.

More proactive

During 16% of nontraffic related contacts with suspects, patrol officers indicated they were patrolling more aggressively than normal at some point during the ride (*more proactive – all cases*). *More proactive (officer stated)* is a subset of events where the officer *explicitly stated* that s/he was patrolling more aggressively and being more proactive. In short, I hypothesize that patrol officers who indicated they were more proactive are more likely to arrest and use force against suspects.

Less proactive

In contrast to instances of more proactive patrol officer behavior, officers also indicated they were patrolling less aggressively according to POPN qualitative data. Over the course of the shift, patrol officers indicated they were being less proactive (*less proactive – all cases*) and explicitly stated they were patrolling less aggressively (*less proactive – officer stated*) during 3% and 2% of nontraffic related contacts with suspects respectively. In short, I hypothesize that "less proactive" patrol officers will be less likely to arrest and use force against suspects.

Other sources of reactivity: insights from the field research literature

The field research literature also identified factors which could trigger reactivity during observational studies of police (observer sex, status congruency, and time in the field). The purpose of the next section is to briefly discuss the variables, their descriptions, and hypothesized effects with patrol officer arrest behavior and use of force.

Observer sex

Table 7.2 shows the variable description and descriptive statistics for the two measures of observer sex. The first measure is a dichotomous measure of observer sex (1=male observer). Field researchers are split on the effects of observer sex on patrol officer behavior. On the one hand, patrol officers could become more proactive and patrol aggressively in order to showcase their skills and impress female observers by actively searching for opportunities to arrest or use force against suspects. On the other hand, patrol officers may feel more protective of female observers and attempt to shield them from dangerous aspects of police work by limiting their contact with suspects and avoiding situations where the officer may have to arrest or use force.

The second measure of observer sex is different combinations of officer (O1) and observer sex. The accounts of the effects of observer sex on patrol officer behavior are typically written by women and focus on the field research experiences of women. However, these accounts ignore the potential for reactivity for different combinations of O1 and observer sex. For example, female officers may "show off" for male observers in the same way that female field researchers have documented that male officers show off for female observers. Another potential source of reactivity could be *same sex* dyads of observers and officers.[141] For example, officers may feel more comfortable with same sex

observers which could either: (1) be eager to demonstrate exciting aspects of police work (e.g., arrest and use of force) to these observers; or (2) feel no inclination to patrol more aggressively since these observers make officers feel more comfortable when compared to opposite sex observers.

Status congruency

Status congruency is a term used by the interviewer bias literature to describe the level of similarity between interviewers and respondents. The interviewer bias literature posits that the more dissimilar the observer and the observed are demographically (age, sex), attitudinally, and experientially, the stronger the effects of reactivity since differences between the observer and observed can undermine the development of trust necessary to make research subjects feel comfortable and act naturally. In other words, if officers and observers are: (1) the same sex and age; (2) have the same level of education; and (3) share a common background or set of life experiences, then they will have more in common than if they are different along these dimensions. If officers feel more comfortable (or at ease) with these observers, then they will be more likely to expose observers to exciting aspects of police work (i.e., encounters with suspects) and will feel more comfortable arresting or using force against suspects without fear of being judged or evaluated by observers.

Table 7.2 contains variable descriptions and descriptive statistics for two measures of status congruency used in this analysis of patrol officer arrest behavior and use of force. The first measure is an ordinal measure of the level of status congruency between officers and observers along four dimensions which were added together to form an index. Three of the four components of the index are demographic characteristics of

officers and observers. Observer and officers who were the same age (within 5 years), the same sex, and had similar levels of formal education (B.S. or better) were coded "1". In addition, observers who aspired to become a law enforcement officer was included in this measure of status congruency since observers who aspired to be law enforcement officers share a common set of life experiences with patrol officers (i.e., at one point in their life, patrol officers aspired to become law enforcement officers). Observers who wanted to be law enforcement officers were coded "1". If officers and observers were similar along all 4 dimensions, then the first measure of status congruency would be coded "4". If officers and observers were different along these four dimensions, then this measure of status congruency was coded "0".

Similarly, the second ordinal measure of status congruency focused only on demographic similarity between officers and observers along three dimensions (age, sex, and education) in order to form a second additive index. Officers and observers who were the same age (within 5 years), sex, and had the same level of formal education (B.S. or better) were coded "3" while observers and officers who were different ages, sexes, and had different levels of formal education were coded "0".

Time in the field

Anecdotal evidence from qualitative field researchers and police researchers suggest that observational data collected during early stages of fieldwork may be less accurate than data collected at later stages of fieldwork. In short, there is an adjustment period for patrol officers while they become accustomed to the presence of the observer. For example, Skolnick (1966) observed that a police researcher who only rode with police officers for a day or two would get a superficial "whitewash tour." The

implication is that police officers will shelter observers from the more brutal aspects of police work (i.e., situations where there is the potential for danger and/or violence such as encounters with suspects) during the early stages of fieldwork.

In contrast, Van Maanen (1982, 1983b) and more recent observational data collected by Mastrofski and Parks (1990) found that officers were 'showing off' and becoming more proactive and aggressive during the early stages of fieldwork. Patrol officers were eager to demonstrate their skills to observers and were seeking out situations to put those skills on display. Thus, officers could be more likely to make contact with suspects, arrest, and use force during early stages of fieldwork.

Continuous time in the field (TIF)

Although both qualitative field researchers and police researchers recognize that time in the field could affect the accuracy or validity of observational data, no one has specified *how* time in the field affects observational data. The purpose of the next section is to specify 5 different measures of time in the field which reflect different ways that time in the field could affect the behavior of patrol officers.

Number of times an officer rides with the *same* observer (OBS_O1)

Reactivity due to time in the field could be a "person specific" phenomenon. For example, officers could be suspicious of strangers. Each observer is treated as a stranger until the officer becomes comfortable with him/her. This suspicion (and any behavioral changes associated with it) would be strongest the first time an observer rides with an officer, but dissipate over time as the *same* observer rides with the same officer a number of times. OBS_O1 is an interval measure of the number of times an officer rides with the *same* observer (see Table 7.3 for more detail).

Number of times an officer rides with the *any* observer (ANY_OBS)

Similarly, ANY_OBS is the number of times an observer with *any* observer. In other words, patrol officers may not be suspicious of every individual that rides with them, but may only be uncomfortable because they are not used to having riders of any kind. Another possibility is patrol officers become more at ease and act more naturally because they learn more about the project from multiple observers as well as colleagues over time. Regardless of how it occurs, I hypothesize that, as more observers ride with the officer, they will be become more comfortable and they will stop reacting to the presence of the observer.

The passage of time: sequence of rides from first to last (RIDESEQ) and number of days of fieldwork (NUMDAYS)

The next two measures of time in the field are more general measures of the passage of time itself. RIDESEQ is the sequence of rides from first to last for each observer. NUMDAYS is the number of days of fieldwork from first to last. If OBS_O1 and ANY_OBS are measuring whether officers need direct contact with observers before they feel comfortable with them over time, then RIDESEQ and NUMDAYS are the more general effects of seeing observers around the stationhouse and riding with colleagues in your district or unit. In other words, officers may not need one-on-one contact with observers to become comfortable with their presence. Officers may only need to, for example, hear second-hand reports from peers about the trustworthiness of observers or gradually become comfortable with seeing observers during roll call. Suspicion could dissipate over time as observers unobtrusively blend into the landscape over time.

The stability of observer assignments: the number of beats an observer rode in (NUMBEATS)

Whenever possible, observers were assigned to the same district to allow patrol officers to become familiar with observers and to allow observers to become familiar with the beats. However, some observers served as "floaters" and bounced from district to district in order to fill out the observational schedule. A final measure of time in the field deals with the stability of the observer assignments (or the number of beats the observer rode in).[142]

NUMBEATS could have one of two effects on police behavior. On the one hand, if observers bounced around a lot and acted as "floaters,' then it is less likely that police officers became familiar with each observer as an individual and built up the trust necessary to allow officers to feel comfortable and act naturally in their presence. Thus, over time, police officers would feel less comfortable arresting and using force against citizens.

In contrast, Van Maanen (1983b, 1982) argued that patrol officers 'showed off' for observers they are unfamiliar with and gradually revert back to their normal work routine of reacting to calls for service. As a result, observers with less stable beat assignments will be more likely to trigger this effect. Thus, police officers will be more likely to use force and arrest when accompanied by observers with less stable beat assignments.

Categorical time in the field (TIF)

The previous section covered 5 different measures of TIF: OBS_O1, ANY_OBS, RIDESEQ, NUMDAYS, and NUMBEATS. These 5 measures are continuous/interval measures of TIF which assume that the effects of TIF are gradual and incremental. In

contrast, the 5 measures of categorical TIF were created by recoding the 5 measures of continuous TIF. Categorical TIF are dichotomous measures of TIF that were created to see if the effects of these variables are more drastic threshold effects.

The first time an observer rode with an officer (COBS_O1)

OBS_O1 is the number of times an officer rode with the same observer. COBS_O1 is a dichotomous variable coded "1" if it was the first time an officer rode with the same observer and "0" otherwise. In other words, officers may only: (1) feel suspicious and uncomfortable with the presence of an observer; and (2) appreciably change their behavior in terms of arrest and use of force *the first time* they ride with an observer, but revert back to their normal pattern of behavior for the rest of the times they ride with the observer.

The first time any observer rode with an officer (CANY_OBS)

Similarly, CANY_OBS is simply a dichotomous recoding of ANY_OBS which is coded "1" if it was the *first time* an officer rode with *any* observer and "0" for other rides. The logic of this recoding is identical to COBS_O1. Officers may only: (1) feel suspicious and uncomfortable with the presence of an observer; and (2) appreciably change their behavior in terms of arrest and use of force *the first time* they ride with any observer, but revert back to their normal pattern of behavior for the rest of the times they ride with any observer.

Categorical RIDESEQ (EARLYSEQ MIDSEQ) and NUMDAYS (EARLYDAY and MIDDAYS)

RIDESEQ and NUMDAYS were recoded into pairs of dichotomous variables to correspond to three stages of fieldwork (EARLYSEQ and MIDSEQ, EARLYDAY and

MIDDAYS).[143] Although it is possible that the effects of RIDESEQ and NUMDAYS are linear, categorical measures of these variables were created to see if different pairwise comparisons of the different stages of fieldwork (beginning, middle, and end) were significant predictors of arrest and use of force. In other words, when patrol officers become accustomed to observers, it may not be a gradual process, but a more drastic and sudden change which correspond to splitting the time spent conducting fieldwork into a beginning, middle, and end phase.

Categorical NUMBEATS (HIBEAT)

Similarly, NUMBEATS was recoded into a dichotomous variable, HIBEAT. HIBEAT was coded "1" if observers rode in 6 to 8 beats (i.e., the "high" end of the distribution of NUMBEATS) and "0" if observers rode in 2-5 beats. Presumably, officers would be less familiar with and more suspicious of observers who were "floaters" and bounced around from beat to beat compared to observers who had more stable beat assignments. Given the greater level of unfamiliarity, officers may adjust their behavior accordingly and be less likely to arrest and use force against suspects.

Control variables

Table 7.4 contains the variable description and descriptive statistics for the control variables used in the multivariate analyses. The first group of control variables is characteristics of ***suspects***. The first five variables in Table 7.4 are demographic characteristics of suspects (sex, age, wealth, and race). Two variables were created in order to create a three category measure of suspect wealth (chronic poverty, low class, and middle class). Observers categorized suspects based on wealth based on dress, appearance, evidence of ownership of property (car or home), as well as information

provided by the citizen about his or her possessions or prospects (e.g., job, home, and/or other resources).[144] Homeless citizens were categorized as "chronic poverty," while "low class" citizens had regular access to food, clothing, and shelter, but could only provide these things at a very modest level or a level slightly above subsistence.

Observers also categorized the demeanor of suspects as disrespectful or not, any indications of drug/alcohol use, the mental state of the suspect, and whether the suspect had a weapon within "jump and reach."

Table 7.4 also contains 5 situational factors which are commonly included as control variables in multivariate analyses of the decision to arrest or use force (seriousness of offense, number of bystanders, number of officers on scene, location, and victim requests arrest).

Rationale and description of bivariate analysis: arrest and use of force[145]

Bivariate analyses were conducted on selected themes from the qualitative coding (see Table 7.1) and factors which could trigger reactivity from the field research literature (see Table 7.2 and 7.3) in order to determine if there is a bivariate relationship between these key explanatory variables and patrol officer arrest behavior and use of force.[146] Variables with significant bivariate relationships were included in the multivariate analysis while nonsignificant variables were dropped from the analysis.[147]

Bivariate analysis: qualitative coding and the decision to arrest and use force

Table 7.7 is an overview of the results of the bivariate analysis for selected themes within the qualitative coding (overviewed in Table 7.1) for both patrol officer arrest and use of force behavior. The bivariate relationship between the qualitative coding for patrol officers who expressed concerns about safety (SAFE) and patrol officers who acted at

ease with the presence of observers (AT EASE) and patrol officer arrest behavior was negative and significant relationship at the .05 level. In addition, three measures of when observers help officers from qualitative coding (OBSHELP,[148] HELPPW,[149] HELPARR[150]) have positive and significant bivariate relationships with use of force at the .05 level.

Overall, six out of 26 possible bivariate relationships in Table 7.6 are significant at the .05 level which is more than expected by chance. Only the (negative) bivariate relationship for AT EASE is contradictory to the hypothesized effects specified in Table 7.5.

Bivariate analysis: observer sex, status congruency, time in the field, and the decision to arrest and use force

Table 7.8 shows the results from the bivariate analysis for observer sex, status congruency, and time in the field. The bivariate relationship between different combinations of officer and observer sex (O1OBSSEX) and the decision to arrest is significant at the .05 level. In addition, the two measures of status congruency (SCONGRU[151] and SCONGRU2[152]) have positive and significant bivariate relationships with the decision to arrest. Finally, two measures of continuous time in the field (OBS_O1 and NUMBEATS) and one measure of categorical time in the field (HIBEAT) have negative and significant bivariate relationships with the decision to arrest.

Overall, 11 out of 32 (or about 34.3%) of the bivariate relationships in Table 7.7 are significant at the .05 level which is more than expected by chance alone. While there are no hypothesized effects specified for observer sex or time in the field in Table 7.6, the (positive) bivariate relationship between the two measures of status congruency and both arrest and use of force are in the hypothesized direction.

Multivariate analyses: reactivity and the decision to arrest[153]

Variables with significant bivariate relationships with the decision to arrest will be entered into logistic regression equations in the next three sections. First, two themes within the qualitative coding (SAFE and AT EASE) will be examined. Next, the effects of observer sex and status congruency net of the effects of controls will be discussed. Finally, logistic regression equations for two measures of continuous TIF (OBS_O1 and NUMBEATS) and one measure of categorical TIF (HIBEAT) will be considered. The purpose of the next three sections is to briefly discuss the direction and strength of the effects of significant indicators of reactivity. A summary and conclusion section at the end of the chapter will tie together these findings with hypothesized effects discussed in earlier sections and summarized in Table 7.5 and 7.6.

The qualitative coding (SAFE and AT EASE) and the decision to arrest

Multivariate analyses were run for two themes within the qualitative data (SAFE and AT EASE) that have significant bivariate relationships with the decision to arrest. Table 7.9 contains odds ratios for logistic regression equations for SAFE (equation 1) and AT EASE (equation 2). While AT EASE is not a significant predictor of arrest, patrol officers who express concerns about safety over the course of the shift (SAFE) are 48% less likely to arrest suspects net of the effects of the control variables discussed in Table 7.3. This relationship is significant at the .01 level. The direction of the relationship is also consistent with hypothesized effects specified in Table 7.5.

Observer sex, status congruency, and the decision to arrest

Table 7.10 contains odds ratios for multivariate logistic regression equations for different combinations of officer and observer sex (equation 1) and two measures of

status congruency (equation 2 and 3) which have significant bivariate relationships with the decision to arrest. While the two measures of status congruency (equation 1 and 2) are not significant predictors of the decision to arrest, the 3 variables entered into equation 1 (which represent the four possible combinations of officer and observer sex) are positive and significant predictors of the decision to arrest net of the effects of control variables. Officers are 44% less likely to arrest when male officers are accompanied by male observers compared to when female officers are accompanied by female observers. Officers are also 44% less likely to arrest when male officers are accompanied by female observers when compared to when female officers are accompanied by female observers. Female officers accompanied by male observers are 62% less likely to arrest when compared to when female officers are accompanied by female observers. One possible interpretation of this pattern of effects is that officer sex has an independent effect on the decision to arrest.

Continuous and categorical TIF and the decision to arrest

Table 7.11 contains odds ratios for multivariate logistic regression equations for two measures of continuous TIF (OBS_O1 and NUMBEATS) and one measure of categorical TIF (HIBEAT) that have significant bivariate relationships with the decision to arrest. Both NUMBEATS and HIBEAT are significant predictors of the decision to arrest at the .001 and .01 level respectively. For each additional beat that an observer rides in, patrol officers are 20% less likely to arrest (see odds ratio for NUMBEATS in equation 2). The relationship is even stronger for the categorical measure of NUMBEATS in equation 3: officers are 45% less likely to arrest suspects when officers are accompanied by observers with the *least* stable beat assignments (HIBEAT).

Multivariate analyses: reactivity and the use of force

Variables with significant bivariate relationships with the use of force will be entered into multinomial logit models[154] (MNLMs) in the next three sections. First, three themes within the qualitative coding (OBSHELP, HELPPW, HELPARR) will be examined. Next, the effects of two measures of continuous TIF (OBS_O1 and NUMBEATS) net of the effects of controls will be discussed. Finally, three measures of categorical TIF (COBS_O1, CANY_OBS, and HIBEAT) will be considered. The purpose of the next three sections is to briefly discuss the direction and strength of the effects of significant indicators of reactivity.

MNLMs created three logistic regression equations for each possible pairwise comparison of the three categories of use of force. Since use of force is ordinal, each pairing of categories in use of force in, for example, Table 7.12 can be ranked in relation to one another. For example, restraint is a greater level of force compared to no force (see column A|B), physical force is a greater level of force compared to no force (see column A|C) and physical force is a greater level of force compared to restraint (see column B|C). Thus, the positive hypothesized effects and positive and significant findings from the multivariate analyses mean that officers were more likely to use the greater level of force compared to the lesser level of force for each pairwise comparison in Table 7.12. The next three sections will focus on the effects of statistically significant indicators of reactivity on the use of force by seeing if officers are more/less likely to use greater/lesser levels of force. A summary and conclusion section at the end of the chapter will tie together these findings with hypothesized effects discussed in earlier sections and summarized in Table 7.5 and 7.6.

The qualitative coding (OBSHELP,[155] HELPPW,[156] HELPARR[157]) and use of force

Multivariate analyses were conducted for OBSHELP, HELPPW, and HELPARR since these variables had significant bivariate relationships with use of force. Odds ratios from the multinomial logit models for OBSHELP, HELPPW, and HELPARR are shown in Table 7.12, 7.13, and 7.14 respectively. A pattern emerges when looking at the logistic equations across these three tables. Patrol officers are more likely to use force against suspects when observers help officers at some point over the course of the shift (see column one of Table 7.12, 7.13, and 7.14). If observers help in any way (OBSHELP) or help with police work (HELPPW), patrol officers are 55% more likely to restrain a suspect using firm grip or nonpain compliance when compared to using no force against suspects. If observer helps officers with arrest (HELPARR), the percentage is even higher: officers are 60% more likely to restrain a suspect using nonpain firm grip or nonpain compliance when compared to using no force against suspects.[158]

Continuous TIF (RIDESEQ and NUMBEATS[159]) and use of force

In Table 7.15 and Table 7.16, multinomial logit models (MNLM) were also run for two continuous measures of TIF: RIDESEQ and NUMBEATS. Although the coefficients for RIDESEQ in Table 7.15 are not significant, Table 7.16 shows that NUMBEATS is a significant predictor of different pairwise comparisons of use of force for all three possible comparisons used in this analysis. The direction of the effect of NUMBEATS is mixed for these three equations. Patrol officers are 21% less likely to use no force versus restraint against suspects for each one unit increase in NUMBEATS (equation A|B), but are 24% and 57% more likely to use lower levels of force when

comparing the odds of using physical force versus no force (equation A|C) and physical force versus restraint (equation B|C) for each one unit increase in NUMBEATS.

Categorical TIF (COBS_O1, CANY_OBS[160], and EARLYSEQ, MIDSEQ) and use of force

Three measures of categorical TIF had significant bivariate relationships with use of force. The MNLM for COBS_O1 is shown in Table 7.17. At the low end of the force continuum (A|B or restraint versus no force), COBS_O1 is not a significant predictor of use of force. In contrast, COBS_O1 is a significant predictor in the next two equations (A|C and B|C). Patrol officers are about 70% more likely to use higher levels of force against suspects (physical force versus no force in equation A|C and physical force versus restraint in equation B|C) during the first ride that an observer rides with an officer (COBS_O1) net of the effects of controls.

Table 7.18 shows the MNLM for CANY_OBS. Although only marginally significant ($p<.1$), the direction of the effect is identical to those found in Table 7.17 for COBS_O1: the first time an officer rides with any observer (CANY_OBS), the officer is 32% more likely to use greater levels of force against suspects (physical force versus no force in equation A|C).

Table 7.19 shows the MNLM for the categorical measure of ride sequence. In two out of the three equations, MIDSEQ is a significant predictor of use of force. In equation A|C, patrol officers are 51% more likely to use higher levels of force (physical force versus no force) during the middle part of fieldwork compared to the last stages of fieldwork. Similarly, officers are 53% more likely to use greater levels of force against suspects (physical force versus restraint) during the middle stages of fieldwork compared

to the later stages of fieldwork.

Summary and conclusion

The bivariate analysis was conducted in order to determine if these indicators of reactivity discussed in Table 7.1, 7.2, and 7.3 had significant bivariate relationships with arrest and use of force. The overall pattern of findings from the bivariate analysis for the decision to arrest and use of force (listed in Table 7.7 and 7.8) occurred too often to be attributed to random variation within the data.

Variables with significant bivariate relationships were included in the multivariate analysis. Multivariate analyses were conducted to determine if selected major themes within the qualitative data or the quantitative factors specified by field researchers (observer sex, status congruency, and TIF) have a systematic effect on patrol officer arrest behavior or use of force by patrol officers. A pattern of significant findings indicates a pattern of systematic bias with POPN observational data since there is no a priori reason for indicators of reactivity to be significant predictors of the decision to arrest and use force after controlling for more traditional explanations of police behavior.

The decision to arrest: multivariate findings and hypothesized effects

Table 7.20 contains a summary of the findings from multivariate analyses for the decision to arrest. Table 7.20 shows that all statistically significant indicators of reactivity decreased the probability that patrol officers would arrest suspects. Patrol officers who expressed concerns about safety may have acted on those concerns: they were less likely to arrest suspects. For 3 out of 4 different combinations of officer and observer sex, officers were less likely to arrest. Similarly, if officers were less familiar and more suspicious of observer with less stable beat assignments (as measured by the

number of beats they rode in or NUMBEATS and HIBEAT), then it had a significant impact on their arrest behavior. Overall, of the 6 hypothesized effects specified in Table 7.20, 3 are statistically significant and also in the direction predicted based on my review of the qualitative data and field research literature.

The use of force: multivariate findings and hypothesized effects

Qualitative coding (OBSHELP, HELPPW, HELPARR)

Table 7.21 contains the summary of findings from the multivariate analysis of use of force.[161] When observers help officers (OBSHELP, HELPPW, HELPARR), officers are more likely to use force against citizens, but only at the low end of the force continuum (restraint versus no force). This finding is consistent with the hypothesized effect of OBSHELP on use of force. Officers may feel more comfortable using force against suspects since the observer had demonstrated at some point over the shift that s/he would help the officer if need be.

Continuous TIF (NUMBEATS)

Similarly, at the low end of the force continuum (restraint versus no force), officers were more likely to choose the greater level of force of the two when accompanied by observers with less stable beat assignments (NUMBEATS). In contrast, officers accompanied by observers with less stable beat assignments (NUMBEATS) were less likely to use the greater level of force for the other two pairwise comparisons which included physical force (see column A|C and B|C). One possible interpretation for this pattern of findings is that officers are uncomfortable with observers with less stable beat assignments and it is having a differential effect on their use of force behavior. Officers

who are unfamiliar with observers may be more likely to restrain suspects (see column A|B) because when observers are an unknown quantity in order to maintain a higher level of control over suspects in order to shield the observer from a potentially dangerous situation. Similarly, officers may be reluctant to use physical force against suspects because they are unfamiliar with the observer. Both the observer and the observer's reaction to the use of physical force is an unknown to the officer. As a result, the more unfamiliar an officer is with an observer (measured by NUMBEATS), the more likely it is that the officer will shield observers from these extreme instances of force.

Categorical TIF (COBS_O1, CANY_OBS, and EARLYSEQ, MIDSEQ)

The final section of Table 7.21 shows the hypothesized effects and multivariate findings for categorical measures of TIF. The hypothesized effects are unspecified because patrol officer behavior could change in one of two ways. On the one hand, the novelty of having an observer at early stages of fieldwork or in the early stages of their relationship (e.g., the first time an officer rides with an observer) could cause the officer to "show off" for the benefit of the observer. If the officer actively seeks out dangerous or exciting aspects of police work, they may be more likely to: (1) come into contact with suspects; and (2) be in situations where use of force is necessary. In contrast, officers may also view observers with suspicion during early stages of fieldwork and be reluctant to expose observers (an unknown quantity) to dangerous and controversial aspects of police work. Officers believed that use of force against citizens was subject to review by superiors and some feared that the observer could be called on to comment or testify about what they had seen.

The direction of effects from COBS_O1 and CANY_OBS suggests that officers

are more likely to show off rather than shelter observers from extreme cases of use of force during the early stages of their relationship given the positive and significant findings for 3 out of 6 possible pairwise comparisons of use of force. Interestingly, the strongest effects were found for the most extreme cases of use of force: physical force.

COBS_O1 and CANY_OBS were included in this analysis to test for variation during the early stages of the officer's and observer's *relationship*, the categorical measure of ride sequence (EARLYSEQ and MIDSEQ) is a more general measure of TIF that was included to measure variation in use of force *over the course of fieldwork.* The categorical measure of ride sequence has positive and significant effects with contrasts associated with the most extreme cases of use of force: physical force. More specifically, officers are more likely to use physical force against suspects during the middle of fieldwork compared to the last stages of fieldwork. One possible interpretation of this finding is that officers are suspicious of observers because they are unfamiliar with them during early stages of fieldwork, but gradually become more comfortable with them over time. Their comfort level reaches its maximum during the middle stages of fieldwork, but then declines over time as the end of fieldwork approaches as officers begin to realize that observers are not officers in training. Rather observers are civilians and will return to the civilian world once fieldwork is over. As a result, officers may shield observers from extreme instances of use of force during later stages of fieldwork.

CHAPTER EIGHT – Reactivity and interride variation in patrol officer behavior: multivariate analyses of goofing off and aggressive patrol

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Rationale for ride level analyses

The previous chapter focused on the impact of an observer's presence on the decision to arrest and use force. Although these decisions are defining aspects of police work, a more realistic depiction of a typical shift of police work is long periods of inactivity which are interrupted by mundane calls for service. In other words, arrest and use of force are the exception rather than the rule. The purpose of this chapter is to examine reactivity within the context of a typical shift of police work by: (1) focusing on three different types of patrol officer behavior which commonly occur over the course of a shift; and (2) using POPN observational data to see observers are triggering interride variation in patrol officer behavior.

Variable description

The dependent variables: patrol officer behavior over the course of a shift

Table 8.1 gives the variable description and descriptive statistics for the dependent variables to be used in the ride level analysis.[162] The first three dependent variables are the number of times an officer takes breaks or runs errands (NGOOF), the number of officer initiated events (NOINIT), and the number of times an officer investigates suspicious circumstances (NSUSPI) over the course of a shift. While NGOOF, NOINIT, and NSUSPI are the *number of times* these events occur over the course of a shift,

TGOOF, TOINIT, and TSUSPI are analogous measures of the *amount of time* (in minutes) an officer spends conducting these activities.[163] For example, officers took breaks and/or ran errands 4.5 times per shift on average (see NGOOF in Table 8.1). However, officers spend 70 minutes taking breaks and running errands over the course of a shift (see TGOOF in Table 8.1).

NGOOF and TGOOF are two measures of "goofing off". Officers obviously have a certain amount of time to take breaks over the course of a shift (e.g., one hour for lunch and two 15 minute breaks). However, some themes within the qualitative data revealed that some officers were uncomfortable taking breaks or running errands in the presence of observers.

The remaining dependent variables (NOINIT, TOINIT, NSUSPI, and TSUSPI) are measures of aggressive patrol. Since patrol officers have a lot of discretionary time (i.e., time free from calls for service), they have the ability to "freelance" and tailor their style of policing to their mood or their disposition. The field research literature and the qualitative data are unclear about the effects of reactivity on officer behavior. On the one hand, officers could patrol more aggressively in an attempt to expose observers to more exciting aspects of police work. On the other hand, patrol officers could intentionally shelter observers from police work by avoiding these types of situations.

NOINIT and TOINIT are the most general measures of aggressive patrol, which excludes general motorized patrol. In short, officers have the ability to patrol more aggressively by "looking for trouble" and engaging in more officer initiated events. Given the amount of discretionary time an officer has over the course of a shift (see TDISCR in Table 8.4), officers have the ability to control: (1) how aggressively they

patrol; and (2) how long they spend patrolling more aggressively. NOINIT are the number of officer initiated events per shift (excluding general motorized patrol).[164] On average, an officer engaged in 24.7 officer initiated events (see NOINIT in Table 8.1) over the course of a shift which took 243.8 minutes of time (see TOINIT in Table 8.1).

NSUSPI and TSUSPI also exclude general motorized patrol and occur less often than officer initiated events (see Table 8.1), but are more specific measures of aggressive patrol. These two measures of aggressive patrol are measures of how willing an officer is to expose an observer to potentially dangerous situations. NSUSPI and TSUSPI are measure of how often and how long an officer spends investigating suspicious circumstances over the course of a shift. For example, an officer drives by a warehouse and sees it has an open window. If the officer chooses to go into the warehouse to investigate these "suspicious circumstances," then the officer shows a willingness to expose the observer to a potentially dangerous situation. The officer does not know if this is a burglary in progress or if the suspect is still in the warehouse. Officers spent about 11.4 minutes per shift (see TSUSPI in Table 8.1) investigating suspicious circumstances which occurred about 1.8 times per shift (see NSUSPI in Table 8.1).

The qualitative coding

Table 8.1 contains the variable description and descriptive statistics for selected themes within the qualitative data. With three exceptions, the qualitative coding used the in the ride level analysis is identical to the qualitative coding used in Chapter 6 for the decision to arrest and use force (see Table 6.1 for an overview).[165] Given the level of overlap between the qualitative coding between Chapter 6 and 7, I will focus on illustrating the difference in interpreting the descriptive statistics due to the change in unit

of analysis (nontraffic encounters with suspects versus number of shifts) for elements of the coding *not* utilized in Chapter 6.

Self conscious about breaks/errands are the percent of rides where the officer acted uneasy or uncomfortable taking breaks or running errands in the presence of the observer. Officers indicated they were self-conscious about breaks and errands during about 8% of rides. The qualitative coding also included two measures of TIF. *TIF – all cases* were rides where officers felt that the officer's behavior changed over time. During 17% of rides, observers documented that the patrol officer's behavior changed over time. The second measure of TIF (*TIF – interride*) are a subset of *TIF – all cases* where the observer felt the patrol officer's behavior changed appreciably from one ride to another. This theme was documented in the qualitative data for about 3% of rides. Since the ride level analysis is looking specifically for interride variation in patrol officer behavior, this variable was included in the multivariate analysis.

Other sources of reactivity: insights from the field research literature

Observer sex and status congruency[166]

Although their interpretations are different given the change in unit of analysis, the measures of observer sex and status congruency used for the decision to arrest and use force in Table 6.1 and in Table 8.1 for the ride level analysis are identical. The interpretation of the mean for the dichotomous variables measuring observer sex is a straightforward "percent of rides". For example, officers were accompanied by male observers during 54% of rides.

The first measure of status congruency (based on age, sex, education, and observer's job aspirations) shows that observers and officers had about 1.29 statuses out

of a possible 4 in common on average, while the second measure of status congruency (based on age, sex, and education only) shows that officers and observers had about .85 out of 3 possible statuses in common on average.

Continuous and categorical TIF

Chapter 6 contains an in-depth discussion of the measures of continuous and categorical TIF. Although the unit of analysis changed between the two chapters, identical measures were used in Chapter 7 to measure for interride variation in patrol officer behavior. For example, observers went on an average of 20 rides with officers so the mean of RIDESEQ is about 10.4.

Control variables

Although the three previous sections on the qualitative coding, observer sex, status congruency, and TIF contained very brief discussions of the variables used in the ride level analysis due to the level of overlap with variables used in Chapter 6, the control variables for Chapter 7 are very different from controls used in Chapter 6 due to the change in unit of analysis (nontraffic encounters with suspects versus ride level officer behavior). Table 8.4 gives the variable description and descriptive statistics for the control variables used in the multivariate ride level analysis. These variables can be divided into two categories. The first category includes one measure of the motivation level of the patrol officer (O1YREXP). The longer an officer has been on the force, the less likely they are to patrol aggressively.

The second category of control variables includes 7 measures of "opportunity." In order to react to the presence of the observer, the officer must have the opportunity. SHIFTIME (the length of shift in hours), STAFFING (number of patrol officers on duty

per shift), TDISCR (total discretionary time per shift), and shift (a three category variable measured by DAYSHIFT and AFTSHIFT) are used to control for the amount of opportunity an officer has to "freelance." For example, an officer will have little opportunity to react to the presence of the observer if: (1)s/he spends most of the shift responding to calls for service and has little discretionary time (TDISCR); (2) a number of patrol officers call in sick (STAFFING); (3) the officer only works a half-day because s/he has to pick up his/her child (SHIFTIME); or (4) the officer happens to work during one of the busier shifts (DAYSHIFT, AFTSHIFT).

LOWDIST and MEDDIST are categorical measures of socioeconomic distress for patrol areas under observation. An additive index was constructed from three variables: percent of families with children with female headed households, percent of adults unemployed, and percent of population below 50% of poverty level. This index of socioeconomic distress was collapsed into three categories: LOWDIST, MEDDIST, and HIGHDIST. LOWDIST and MEDDIST were patrol areas with the lowest level of socioeconomic distress and medium level of socioeconomic distress respectively (for a more in-depth discussion of this index, see Reisig and Parks 2000). Since opportunities to engage in aggressive patrol (especially investigating suspicious circumstances) could partially be a function of the high level of crime and police activity within HIGHDIST neighborhoods, this categorical measure of socioeconomic distress was included in the ride level analysis.

Hypothesized effects

Table 8.5 summarizes the hypothesized effects of the qualitative coding for the

three types of officer behavior which are the focus of the ride level analysis.[167] SC (*self-conscious – all case*) and SCBRK (*self-conscious about breaks/errands*) are hypothesized to have negative effects on GOOF, OINIT, and SUSPI since officers who are either uncomfortable with the presence of the observer in a general sense (SC) or uncomfortable in terms of taking breaks or running errands (SCBRK) should be less likely to patrol aggressively or goof off over the course of the shift.

While it is unclear what effect SAFE (*safety – all cases*) will have on how often an officer "goofs off" (GOOF), officers who express concerns about safety should be less likely to patrol aggressively. In contrast, officers who indicate they are at ease with the presence of the observer (AT EASE) or who get some form of help from the observer (OBSHELP, HELPPW, HELPARR) should feel more comfortable with the presence of the observer and be more likely to goof off and patrol aggressively.

Officers who indicate they are behaving more proactively (MPA and MPA – officer stated change) should patrol more aggressively, but take shorter breaks and run fewer errands since they have less time to conduct these activities when trying to show off for the benefit of the observer. In contrast, observers who act less proactive (LPA and LPA – officer stated change) would do the opposite: patrol less aggressively, take longer breaks and run more errands.

Table 8.6 summarizes the hypothesized effects of observer sex, status congruency, and TIF on patrol officer behavior. As noted in Chapter 6, the literature is split about the effects of observer sex and TIF on patrol officer behavior. However, status congruency should set officers at ease, make them feel more comfortable, and result in more aggressive patrol, longer breaks, and more errands over the course of a shift.

Bivariate analysis: qualitative coding[168]

Table 8.7 summarizes the results from the ride level bivariate analysis of the qualitative coding. Contrary to the hypothesized effects specified in Table 8.5, SC and SCBRK both have a positive and significant bivariate relationship with NGOOF and TGOOF. The results for SAFE are also mixed. Officers who express concerns about safety are less likely to goof off (NGOOF), but more likely to patrol aggressively (NSUSPI) and spend more time patrolling aggressively (TSUSPI) than officers who express no such concerns.

The effects for AT EASE are also the opposite of those predicted: officers are less likely to patrol aggressively (NOINIT and TOINIT) when they indicate they are at ease with the presence of the observer.

Of the three themes within the qualitative data relating to observers helping officers (OBSHELP, HELPPW, HELPARR), only one out of 18 possible bivariate relationships is significant. Officers spend less time taking breaks and running errands (TGOOF) when observers help them in any way (OBSHELP).

Similarly, there is only one significant bivariate relationship for the two different measures where officers indicated they were being more proactive. However, it is in the expected direction: officers who explicitly stated they were being more proactive (MPA – officer stated change) patrolled more aggressively (NOINIT).

Finally, the two measures of less proactive patrol officer behavior are not significant at the .05 level, but the two measures of TIF derived from the qualitative data were most likely to have a significant bivariate relationship with ride level officer behavior.[169] When observers documented within the qualitative data that the behavior of

patrol officers changed over time (TIF and TIF - interride), officers were less likely to patrol aggressively by seeking out potentially dangerous situations (NSUSPI and TSUSPI). In contrast, observers who felt officer behavior changed from one ride to the next (TIF – interride) were more likely to patrol aggressively as measured by the most general measure of aggressive patrol (NOINIT and TOINIT).

Bivariate analysis: observer sex and status congruency

Table 8.8 gives an overview of the bivariate analysis for observer sex, status congruency, and TIF. The bivariate relationship for different combinations of observer and officer sex (O1OBSSEX) is significant at the .05 level for all 6 measures of patrol officer behavior. One measure of status congruency (measured by SCONGRU2) has a positive and significant effect on one measure of aggressive patrol (NOINIT). This relationship is also in the hypothesized direction.

Bivariate analysis: continuous and categorical TIF

Overall, continuous measures of TIF are more likely to have a significant bivariate effect on ride level officer behavior compared to categorical measures (16 out of 30 versus 9 out of 30 possible bivariate relationships). More importantly, measure of TIF which are more proximal measures of time that an officer spends with a specific observer (i.e., OBS_O1, COBS_O1, ANY_OBS, CANY_OBS, NUMBEATS and HIBEAT) as opposed more general measures of the passage of time (i.e., RIDESEQ NUMDAYS and EARLYSEQ MIDSEQ or EARLYDAYS MIDDAYS) are more likely to have significant bivariate relationships with ride level officer behavior.

Multivariate analyses: "goofing off" (NGOOF and TGOOF)

As noted above, NGOOF and TGOOF are ride level measures of how many times and how long (in minutes) an officer "goofs off" over the course of a shift. Multivariate analyses were conducted using measures of reactivity that had significant bivariate relationships with NGOOF and TGOOF. OLS results are presented in this section, but Poisson regression models (PRMs)[170] were also computed since NGOOF and TGOOF had "truncated" distributions.[171] The following discussion will focus on the OLS findings, but findings from the NBRMs will be footnoted when either the significance level or direction of key measures of reactivity change between the two models.

The first two sections will focus on two aspects of the qualitative coding which had significant bivariate relationships with "goofing off". The third section reviews the effects of different combinations of officer and observer sex on goofing off by officers, while the final section will discuss the multivariate findings for continuous and categorical measures of TIF.

SC, SCBRK and goofing off

Table 8.10 contains the results from the multivariate (OLS) analyses of SC, SCBRK, and goofing off. There are two findings of interest worth highlighting. First, NGOOF and TGOOF are not equivalent measures of goofing off. They tap into different aspects of patrol officer behavior since the findings from the number of times an officer goofs off (NGOOF) is not the same as findings from the amount of time (in minutes) an officer spends goofing off (TGOOF). More specifically, SC has a positive and marginally significant ($p<.1$) relationship with NGOOF,[172] but is nonsignificant for TGOOF. It is vice versa for SCBRK: a nonsignificant relationship with NGOOF, but a positive and

significant (at the .05 level) relationship with TGOOF.

Second, the direction of the effect of SC and SCBRK is in the opposite of the hypothesized effects specified in Table 8.5. Patrol officers who act self-conscious (SC) or act self-conscious about taking breaks or running errands (SCBRK) are not taking fewer breaks and shorter breaks, but just the opposite. Officers who acted self-conscious (SC) took about .58 more breaks per shift (equation 1a) and officers who were self-conscious about breaks and errands "goof off" almost 20 minutes longer than officers who did not express these concerns (equation 2b). One possible interpretation of this counterintuitive finding is that the officers who act self-conscious are, in layman's terms, "slackers." In other words, these officers take advantage of their discretionary time by either avoiding work by taking long breaks or getting pesky errands out of the way when the opportunity presents itself. Their fear may be that the observer will notice when they check themselves out of service for long periods of time while taking breaks and running errands and report their actions.

SAFE, OBSHELP, and goofing off

Table 8.11 contains the OLS results for SAFE and OBSHELP. Officers who express concerns about safety (SAFE) take fewer breaks and run fewer errands (see equation 1) and also spend less time taking breaks and running errands (see equation 2a).[173] Officers who express concerns about safety take almost one less break per shift (equation 1) and spend almost 14 minutes less time taking breaks and running errands (equation 2b). OBSHELP is not a significant predictor of TGOOF.

Officer sex, observer sex and goofing off

Table 8.12 contains the OLS results for different combinations of officer and

observer sex. Only one of the three possible pairwise comparisons is significant at the .05 level (FO1MOBS in equation 1).[174] Female officers with male observers "goof off" 1.5 times more often per shift compared to rides where female officers with female observers (equation 1).

TIF and goofing off

Table 8.13 contains the OLS results for continuous measures of TIF. OBS_O1 is not a significant predictor of either NGOOF or TGOOF. However, ANY_OBS is a positive and significant (at the .1 level) predictor of NGOOF (see equation 1b).[175] With each additional time an officer rides with any observer, the officer takes about .16 more breaks and errands per shift.

Multivariate analyses: officer initiated behavior (NOINIT and TOINIT)

The next section will overview OLS multivariate equations measures of reactivity which are significant bivariate predictors of NOINIT and TOINIT. First, significant findings from the qualitative coding will be highlighted. Next, the OLS equations for different combinations of observer and officer sex and status congruency will be covered. The last two sections will assess the impact of TIF on officer initiated behavior over the course of a shift.

Qualitative coding and officer initiated behavior

Three aspects of the qualitative coding were included in the multivariate analysis. Table 8.14 contains the OLS equations for MORE PROACTIVE (officer stated change) and AT EASE. Neither are significant predictors of NOINIT and TOINIT within the three equations in Table 8.14. In contrast, TIFINTER is a significant predictor of NOINIT and TOINIT in the two equations presented in Table 8.15. TIFINTER are rides

where the observer felt that the officer's behavior changed appreciably from one ride to the next. Officers patrolled more aggressively during these rides. They conducted 3.79 more officer initiated events which took an additional 37.54 minutes of time. These relationships are significant net of the effects of the controls at the .1 level (equation 1) and .05 level (equation 2) respectively.

Officer sex, observer sex, status congruency, and officer initiated behavior

Table 8.16 contains the OLS results for different combinations of officer and observer sex (equation 1a and 2) and status congruency (equation 1b). Different combinations of officer and observer sex are not significant predictors of NOINIT, but two out of the three measures are significant predictors of TOINIT. Officers spend over 30 additional minutes conducting officer initiated activities for rides with female officers and female observers compared to rides with male officers and male observers (equation 2). Officers also spend about 25.5 more minutes with officer initiated activities during rides with female officers and observers compared to rides with male officers and female observers (equation 2). In addition, the greater the level of status congruency between officers and observers, the more likely they are to conduct officer initiated events (equation 1b). For each additional status similarity between officers and observers, officers conducted an additional 1.34 officer initiated activities. The direction of this relationship is also consistent with hypothesized effects specified in Table 8.6.

Continuous TIF and officer initiated behavior

Table 8.17 contains the OLS results for continuous measures of TIF. The pattern of the findings within Table 8.17 is clear and consistent: six equations out of six have positive and significant (at the .01 level or below) relationships with NOINIT and

TOINIT. In other words, the more times an officer rides with an observer, the more aggressively they patrol as measured by the number or the amount of time an officer spends conducting officer initiated activities. For each additional time an officer rides with *any* observer, the officer conducts almost an entire officer initiated event which takes an additional 7.79 minutes per shift (see equation 1a and 2a respectively). When officers ride with the *same* observer, they conduct an additional 1.86 officer initiated events which take an additional 11.28 minutes of time over the course of a shift (see equation 1b and 2b respectively).

Interestingly, this pattern is independent of the number of beats an observer rides in (NUMBEATS) even though the literature suggests that officers would feel more uncomfortable with observers they are unfamiliar with. For each additional beat that an observer rides in, officers conduct 1.94 additional officer initiated events which take 12.65 minutes over the course of the shift (see equation 1c and 2c respectively).

Categorical TIF and officer initiated behavior

Table 8.18 contains the OLS results for categorical measures of TIF and officer initiated behavior. The two categorical measures of TIF are significant predictors of NOINIT and TOINIT in all four equations. The first time an officer rides with *any* observer, the officer conducts 2.08 fewer officer initiated activities and takes 18.8 fewer minutes to conduct officer initiated activities (see equation 1a and 2a respectively). Similarly, the first time an officer rides with the *same* observer, the officer conducts 2.11 fewer officer initiated events and spends 12.17 fewer minutes doing so over the course of the shift (see equation 1b and 2b).

Multivariate analyses: suspicious circumstances (NSUSPI and TSUSPI)

The number and time (in minutes) that officers spent investigating suspicious circumstances (NSUSPI and TSUSPI respectively) were also included in the ride level multivariate analysis as a second measure of aggressive patrol. Table 8.19 contains a histogram of the frequency distribution of NSUSPI and TSUSPI. During 45.2% of rides, officers did not investigate suspicious circumstances for both NSUSPI and TSUSPI. Officers investigated suspicious circumstances (NSUSPI) two or more times in only 13.1% of rides. The histogram for TSUSPI shows a similar distribution in the amount of time officers spent investigating suspicious circumstances: officers spent more than 15 minutes investigating suspicious circumstances during less than 25% of rides. The remainder of this section will overview the multivariate findings from the PRMs by focusing on significant effects for indicators of reactivity outlined above.

Poisson regression models (PRMs)[176] were computed to estimate unbiased regression coefficients given the skewed distribution of the outcome variables. First, PRMs for selected themes within the qualitative coding will be reviewed. Next, significant findings for different combinations of officer and observer sex will be discussed. Third, the findings for continuous measures of TIF will be examined. Finally, categorical measures of TIF will be considered.

Qualitative coding and investigating suspicious circumstances

Table 8.20 contains unstandardized regression coefficients of PRMs for the qualitative coding. Two measures derived from the qualitative coding are significant predictors of this measure of aggressive patrol net of controls. First, contrary to its hypothesized effect, officers who express concerns about safety are more likely to

investigate suspicious circumstances (equation 1a), but the effect is marginally significant ($p<.1$). However, officers who express concerns about safety have a 40% greater expected count of number of investigations of suspicion stops per shift (NSUSPI).[177]

In contrast, TIFINTER has a negative and significant ($p<.01$) relationship with NSUSPI. During rides when observers documented a considerable interride change in officer behavior (TIFINTER), officers were conducting fewer investigations of suspicious circumstances (equation 1c). In other words, officers who had an appreciable change in behavior as measured by TIFINTER had a 66% lower expected count of number of investigations of suspicion stops per shift (NSUSPI). In short, this between shift variation in officer behavior documented by observers coincided with a significant drop in aggressive patrol from one ride to the next.

Officer sex, observer sex and investigating suspicious circumstances

Table 8.21 contains unstandardized regression coefficients of PRMs for different combinations of officer and observer sex. Two out of the three measures of different combinations of officer and observer sex are significant predictors of NSUSPI (equation 1). Rides with both male officers and female observers (MO1FOBS) and female officers and male observers (FO1MOBS) are more likely to investigate suspicious circumstances compared to female officers with female observers. Rides with male officers and female observers (MO1FOBS) have expected counts of NSUSPI almost 77% greater than rides with female officers and female observers. Similarly, rides with female officers and male observer (FO1MOBS) have expected counts of NSUSPI almost 108% greater than rides with female officers and female observers. FO1MOBS is also a significant predictor of the amount of *time* an officer spends investigating suspicious circumstances. Rides with

female officers and male observers have expected counts of TSUSPI over 229% higher than rides with female officers and female observers.

Continuous TIF and investigating suspicious circumstances

Table 8.22 and 8.23 contain the PRM results for continuous measures of TIF. Both RIDESEQ and NUMDAYS are negative and significant predictors of TSUSPI (see equation 2a and 2b respectively). Officers spend less time investigating suspicious circumstances over the course of fieldwork. For each additional ride within the sequence of rides from first to last (RIDESEQ), the expected count of TSUSPI drops by almost 4.9%. For the most general measure of TIF (i.e., the number of days of fieldwork or NUMDAYS), the expected count of TSUSPI drops by almost 2% with each additional day of fieldwork.

Categorical TIF and investigating suspicious circumstances

Table 8.24 contains the PRM results for categorical measures of TIF. Both categorical measures of RIDESEQ and NUMDAYS are significant predictors of NSUSPI and TSUSPI. Officers engage in more investigations of suspicious circumstances during the middle part of the sequence of rides (MIDSEQ) as opposed to the last part of the sequence of rides (equation 1a). The expected count of the number of investigations of suspicion stops (NSUSPI) during the middle part of the sequence of rides is almost 70% greater than the number which occurs during the last rides in the sequence. Similarly, EARLYSEQ and MIDSEQ are positive and significant predictors of the amount of *time* an officer spends investigating suspicious circumstances (equation 2a). The expected count of the amount of time officers spend investigating suspicious circumstances during early parts of the sequence of rides (EARLYSEQ) is almost 62% greater than the number

which occurs during the last rides. During the middle part of the sequence of rides (MIDSEQ), the difference is even greater: officers spend almost 144% more time investigating suspicious circumstances during the middle part of the sequence of rides compared to the last rides in the sequence.

The categorical measures of NUMDAYS also have a positive and significant relationship with both NSUSPI and TSUSPI.[178] During the early days of fieldwork (EARLYDAY), officers are 36% more likely to investigate suspicious circumstances compared to the last part of fieldwork (equation 1b). Officers are also over 68% more likely to investigate suspicious circumstances during the middle days of fieldwork (MIDDAYS) compared to the last stages of fieldwork (equation 1b).

Officers also spend more *time* investigating suspicious circumstances. Officers spend almost 88% more time investigating suspicious circumstances during the early days of fieldwork (EARLYDAY) compared to the last days of fieldwork (equation 2b). Similarly, officers spend about 125% more time investigating suspicious circumstances during middle days of fieldwork (MIDDAYS) compared to the last days of fieldwork.

Summary and conclusion

The purpose of the ride level analysis was to supplement the multivariate analyses on use of force and the decision to arrest by focusing on more typical patrol officer behavior over the course of a shift. Reactivity could not only change the flow of events and/or affect the decision making of patrol officers during potentially dangerous interactions with suspects. It could also trigger interride variation in patrol officer behavior. Bivariate analyses were conducted on selected themes within the qualitative data (see Table 8.7), observer sex, status congruency, and categorical and continuous

measures of TIF (see Table 8.8). Measures of reactivity with a significant bivariate relationship with ride level measures of officer behavior ($p<.05$) were included in the multivariate analysis.

The next two sections will summarize the ride level multivariate findings by highlighting patterns of findings within the data. Overall, the multivariate findings for the different measures of the *number* and amount of *time* in minutes for the two different measures of aggressive patrol seem to tap into different aspects of patrol officer behavior since the findings, for example, for NOINIT and TOINIT are not identical for each measure of reactivity specified in Table 8.26.

One section will focus on comparing/contrasting the multivariate findings for "goofing off" with hypothesized effects specified in Table 8.5 and 8.6. The second section will compare/contrast hypothesized effects with multivariate findings for the two measures of aggressive patrol (OINIT and SUSPI).

Goofing off: multivariate findings and hypothesized effects

Table 8.25 summarizes the significant multivariate findings ($p<.1$) and hypothesized effects for "goofing off." Contrary to its hypothesized effects, patrol officers who act self-conscious take more breaks, run more errands, and spend more time goofing off. One possible interpretation of this finding is that officers who run the most errands and take the longest breaks are very uncomfortable with having an observer watch them take advantage of their discretionary time and are not afraid to express their concerns although, ultimately, they do not change their behavior.

Female officers paired with male observers also take more breaks and run more errands when compared to rides with female officers and female observers. One field

researcher suggested that officers use rides as a "proxy date." This finding could be an outgrowth of that phenomenon.

Finally, the only measure of TIF that is a significant predictor of "goofing off" is ANY_OBS. The more times an officer rides with any observer, the more breaks they take and the more errands they will run. Each successive ride sets the officer more and more at ease and it is reflected in increased numbers of breaks and errands.

Aggressive patrol: multivariate findings and hypothesized effects

Two measures of aggressive patrol were included in the ride level analysis. The most general measure of aggressive patrol is officer initiated behavior. Officers have discretionary time at their disposal over the course of the shift. Officer initiated behavior is self-directed behavior that represents an opportunity for officers to react to the presence of an observer. The second measure of aggressive patrol is a more focused measure of potentially dangerous situations. The qualitative data revealed that some officers were reluctant to investigate suspicious circumstances. For example, some officers did not want to search a warehouse with a broken window when accompanied by an observer.

Qualitative coding: Interride variation in officer behavior (TIFINTER)

Table 8.26 summarizes the significant multivariate findings ($p<.1$) and hypothesized effects for the two measures of aggressive patrol and the measures of reactivity included in the multivariate analysis. TIFINTER are rides where observer felt that officers significantly changed their behavior from one ride to the next. Based on the two measures of aggressive patrol, patrol officers were more likely to engage in officer initiated activities (NOINIT and TOINIT), but less likely to investigate suspicious circumstances during these rides. In other words, the "hunch" that observers had about

interride variation in patrol officer behavior is supported by a pattern of officer behavior within the observational data that cuts across two different measures of aggressive patrol.

Different combinations of officer and observer sex

Multivariate equations were also run for different combinations of officer and observer sex for both measures of aggressive patrol. Although the categorical measure of officer and observer sex is significant for both measures of aggressive patrol, the *direction* of the effects are opposite which suggests that the two measures of aggressive patrol are tapping into two distinctly different aspects of patrol officer behavior. More specifically, male officers accompanied by male observers or male officers accompanied by female observers were *less likely* to spend time with officer initiated activities when compared to rides with female officers with female observers. In contrast, male officers accompanied by female observers or female officers accompanied by male observers were *more likely* to expose observers to danger by investigating suspicious circumstances.

Table 8.26 shows that there are no hypothesized effects for different combinations of officer and observer sex. However, status congruency has a more predictable relationship with officer behavior. The greater the number of common statuses between officers and observers, the more comfortable officers feel with observers. One outgrowth of increased feelings of trust could be higher levels of aggressive patrol. The multivariate findings provide support for this hypothesis.

Continuous TIF

For continuous measures of TIF, the more proximate measures of direct contact between officers and observers (OBS_O1, ANY_OBS, and NUMBEATS) and more general measures of the passage of time (RIDESEQ and NUMDAYS) also have opposite

effects on the two different measures of TIF. More specifically, the more times an officer rides with the same observer (OBS_O1) or any observer (ANY_OBS), the more likely s/he is to engage in officer initiated activities. This significant and positive relationship is independent of how familiar the officer is with the observer given the positive and significant effect of NUMBEATS.

The more general measures of the passage of time (RIDESEQ and NUMDAYS) show that officers are more likely to expose observers to dangerous situations during early stages of fieldwork, but the amount of time that officers spend investigating suspicious circumstances decreases over time.

Categorical TIF

Categorical measures of TIF show the same split in the findings. More general measures of the passage of time (EARLYSEQ MIDSEQ, EARLYDAY, MIDDAYS) are significant predictors of investigating suspicious circumstances while more specific measures of contact between officers and observers (COBS_O1, CANY_OBS) are significant predictors of officer initiated behavior. The first time an officer rides with the same observer (COBS_O1) or any observer (CANY_OBS), the officer is less likely to engage in officer initiated activities.

However, officers are more likely to engage in aggressive patrol which could potentially put officers and observer in danger (NSUSPI and TSUSPI) during different stages of fieldwork. During the last stages of fieldwork, officers are least likely to investigate suspicious circumstances, but are significantly more likely to during the early and middle stages of fieldwork as measured by EARLYSEQ, MIDSEQ and EARLYDAYS and MIDDAYS. The strongest contrasts in terms of percentage difference

in expected counts for NSUSPI and TSUSPI are for MIDSEQ (77% and 144% respectively) and MIDDAYS (68% and 125% respectively). One possible explanation for the drop in investigating suspicious circumstances by patrol officers during the last days of fieldwork is that: (1) officers spent the early stages of fieldwork getting comfortable with observers. During this stage, (perhaps due to the urgings of supervisors) officers felt obligated to show observers some of the exciting aspects of police work (e.g., NSUSPI and TSUSPI). (2) During the middle stage of fieldwork, officers learned that observers would not judge their behavior and developed a relationship with observers. Instead of being coaxed or urged to show observers exciting aspects of police work by supervisors, officers took it upon themselves to do so. As a result, there was a dramatic increase in aggressive patrol during the middle stages of fieldwork. (3) Anecdotal evidence from the qualitative data suggests that officers got "burned out" during the last stages of fieldwork. If the initial excitement of having an "audience" gradually wore off, then officers may have stopped patrolling more aggressively than normal during the last stages of fieldwork.

CHAPTER NINE - Reactivity and intraride (or within a ride) variation in patrol officer behavior: multivariate analyses of goofing off and aggressive patrol

Rationale for ride segment analyses

The previous chapter focused on interride variation in patrol officer behavior since one theme within the qualitative data was that officers were reacting to the presence of the observer by changing their behavior from one ride to the next. Another theme within the qualitative data on reactivity was that officers were reacting to the presence of the observer and changing their behavior over the course of a shift. The purpose of this chapter is to examine POPN observational data to see if indicators of reactivity reviewed in Chapter 7 and 8 are significant predictors of intraride variation in patrol officer behavior by focusing on three types of patrol officer behavior utilized in the ride level analysis in Chapter 8 (NGOOF, NOINIT, NSUSPI).

Two different units of analysis were created to measure intraride variation in patrol officer behavior. Rides were split into four quarters ("quarter shift" ride segment analysis) and into two parts ("first hour versus rest of the shift" ride segment analysis). As a result, this chapter will be split into two parts. The first part of the chapter will focus on the variable description, bivariate analysis, and multivaritate findings for the "quarter shift" ride segment analysis. The second part of the chapter will follow the same pattern, but will describe the "first hour versus the rest of the shift" ride segment analysis.

Variable description: "quarter shift" ride segment analysis

As noted above, two different units of analysis were created to measure intraride variation in patrol officer behavior. First, each ride was split into four quarters for the "quarter shift" ride segment analysis (see Table 9.1). QTR is the four category variable that identifies whether the ride segment fell in the first, second, third, or fourth quarter of the shift. The dependent variables (NGOOFQ, NOINITQ, and NSUSPIQ) are the number of times an officer goofs off, engages in officer initiated activities, or investigates suspicious circumstances over the course of a quarter of a shift (see Table 9.1).

Selected measures of reactivity derived from the qualitative coding, observer sex, status congruency, and TIF were included in the "quarter shift" ride segment analysis. These "ride level" measures of reactivity (e.g., qualitative coding, observer sex, status congruency, TIF), and control variables utilized in the ride level analysis in Chapter 7 were merged into each quarter shift ride segment. For example, SAFETY is a ride level measure of when an officer expresses concerns about safety over the course of the shift. For the "quarter shift" ride segment analysis, if the ride level SAFETY was coded "1", then each quarter shift for the same ride would be coded "1."

Given the level of overlap between measures of reactivity from Chapter 7 and 8, I will focus on highlighting aspects of the qualitative coding and observer sex which were not covered in the previous chapter. TIFINTRA is a dichotomous variable derived from the qualitative coding which includes rides where the officer indicated (or the observer felt) s/he was changing his/her behavior over the course of a shift (see Table 9.1). In addition, MO1FOBS are rides with male officers and female observers (see Table 9.2).

With one exception, the control variables listed in Table 9.4 are also a

straightforward merge of ride level measures utilized in Chapter 7. TDISCR is a more precise measure of discretionary time when compared to the ride level measure used in Chapter 7. Instead of specifying the amount of discretionary time an officer has over the course of an *entire shift*, TDISCR (in Table 9.4) specifies the amount of discretionary time an officer has for *each quarter of the shift.*

Bivariate analysis: "quarter shift" ride segment analysis

Analogous to the bivariate analyses run in Chapter 7, each measure of reactivity specified in Table 9.1, 9.2, and 9.3 was included in the "bivariate analysis."[179] Only measures which were significant at the .05 level were included in the multivariate analysis. Table 9.5 provides a summary of the findings from this part of the "quarter shift" ride segment analysis. There were a few findings of interest. First, QTR is a significant predictor of NOINITQ net of the effects of the amount of discretionary time an officer has per quarter shift (TDISCR). Second, the dashed lines for the multiplicative interaction terms for the qualitative coding, observer sex, and status congruency in Table 9.5 signify that there was significant collinearity between these measures of reactivity, QTR, and the multiplicative interaction term.[180] As a result, the PRM models had convergence problems. Given this caveat, none of the interaction terms (even those with no signs of collinearity for continuous and categorical measures of TIF) were significant at the .05 level.

Multivariate analysis: "quarter shift" ride segment analysis

The multivariate findings are summarized in Table 9.6. There is significant overlap between the ride level multivariate findings (specified in Chapter 7) and the "quarter shift" ride segment findings specified in Table 9.6. Five out of eight possible

indicators of reactivity are significant at the .05 level for both units of analysis. This is not surprising since it is likely that, by splitting the rides into four quarters, the measures of reactivity in the "quarter shift" ride segment analysis may have picked up on the same variation as the ride (or shift) level multivariate analysis.

However, the overlap is not complete. The "quarter shift" ride segment analysis did turn up three additional measures of reactivity that are significant predictors of patrol officer behavior. NUMBEATS was not included in the ride level multivariate analyses in Chapter 7, but is a positive and significant predictor of the number of times an officer goofs off per quarter shift (NGOOFQ). Similarly, HIBEAT was not included in the multivariate analysis in Chapter 7, but is a positive and significant predictor of NOINITQ. ANY_OBS was included in the multivariate analyses in the previous chapter, but was not a significant predictor of one of the measures of aggressive patrol (NSUSPI). In contrast, the more times an officer rides with any observer (ANY_OBS), the less likely they are to investigate suspicious circumstances (NSUSPIQ) in the "quarter shift" ride segment analysis.

The crux of the "quarter shift" (and "first hour versus rest of shift") ride segment multivariate analysis

Interpreting coefficients from the ride level multivariate analysis in Chapter 7 was relatively straightforward. However, interpreting variation in the "quarter shift" multivariate ride segment analysis is not as straightforward given the pattern of multivariate findings. QTR and the multiplicative interaction terms in Table 9.5 were created to model intraride variation in patrol officer behavior. The crux of the "quarter shift" ride segment analysis was to see if either QTR (the four category variable that

measures if the ride segment fell into the first, second, third, or fourth quarter of the shift) and/or the interaction term between QTR and the various measures of reactivity specified in Table 9.5 were significant predictors of officer behavior. A significant finding for the multiplicative term indicates that, for example,[181] patrol officers patrol more aggressively when accompanied by males as opposed to females over the course of a shift.

A significant finding for QTR signifies that officer behavior is changing in a monotonic fashion over the course of a shift. As a result, the multivariate ride segment analysis (for both "quarter shift" and "first hour versus rest of shift) will focus on highlighting and interpreting these two findings when applicable.

Table 9.6 shows that QTR has a negative and significant relationship with NOINITQ after controlling for various measures of reactivity. In other words, patrol officer behavior does change over the course of a shift. Table 9.7 contains the multivariate PRM for the "quarter shift" ride segment analysis for QTR. As noted above, QTR is a negative and significant predictor of NOINITQ net of the effects of the controls included in the model. In short, with each additional quarter of the shift, officers are 4% less likely to engage in officer initiated behavior.

Variable description: "first hour versus the rest of the shift" ride segment analysis

As noted above, two different units of analysis were created to measure intraride variation in patrol officer behavior. Rides were split into four quarters (for the "quarter shift" ride segment analysis) and into two parts (for the "first hour versus rest of the shift" ride segment analysis). The purpose of the next section is to overview the variables which will be utilized in the "first hour versus rest of shift" ride segment analysis.

For the "first hour versus rest of shift" ride segment analysis, rides were split into two parts: the first hour of the shift and the rest of the shift. HOUR1 is a dichotomous measure of whether the ride segment occurred in the first hour of the shift versus the rest of the shift (see Table 9.8). The distribution of the dependent variables used in this analysis (NGOOFH1, NOINITH1, and NSUSPIH1) could best be described as "bimodal". This is not surprising given how each shift was split into two parts (first hour versus rest of the shift) and merged into a single data set for the purposes of this analysis (see Table 9.8).

Selected measures of reactivity derived from the qualitative coding (Table 9.8), observer sex (Table 9.9), status congruency (Table 9.9), and TIF (Table 9.10) were included in the "first hour versus rest of shift" ride segment analysis.[182] These "ride level" measures of reactivity (e.g., qualitative coding, observer sex, status congruency, TIF), and control variables utilized in the ride level analysis in Chapter 7 were merged into each of the two ride segments utilized in this analysis. For example, SAFETY is a ride level measure of when an officer expresses concerns about safety over the course of the shift. For the "first hour versus rest of shift" ride segment analysis, if the ride level SAFETY was coded "1", then the two ride segments associated with that ride would be coded "1."

With one exception, the control variables listed in Table 9.4 are also a straightforward merge of ride level measures utilized in Chapter 7. TDISCR is a more precise measure of discretionary time when compared to the ride level measure used in Chapter 7. Instead of specifying the amount of discretionary time an officer has over the course of an *entire shift*, TDISCR (in Table 9.11) specifies the amount of discretionary time an officer has for *each ride segment*. If the ride segment represents officer behavior

during the first hour of the shift, TDISCR is the amount of discretionary time the officer has during the first hour of the shift. If the ride segment represents officer behavior for the rest of the shift (excluding the first hour), then TDISCR is the amount of discretionary time the officer had for the rest of the shift.

Bivariate analysis: "first hour versus rest of shift" ride segment analysis

Analogous to the bivariate analyses run in Chapter 7, each measure of reactivity specified in Table 9.1, 9.2, and 9.3 were included in the "bivariate analysis."[183] Only measures which were significant at the .05 level were included in the multivariate analysis. Table 9.12 provides a summary of the findings from this part of the "first hour versus rest of shift" ride segment analysis. Two findings of interest will be highlighted. First, HOUR1 is a significant predictor of all three measures of officer behavior net of the effects of the amount of discretionary time an officer has per ride segment (TDISCR). Second, none of the interaction terms were significant at the .05 level.

Multivariate analysis: "first hour versus rest of shift" ride segment analysis

The multivariate findings are summarized in Table 9.13. Two patterns emerge from the multivariate findings summarized in this table. First, there is significant overlap between the ride level multivariate findings (specified in Chapter 7) and the "first hour versus rest of shift" ride segment findings specified in Table 9.13. Five out of six possible indicators of reactivity are significant at the .05 level for both units of analysis. As noted above, it is possible that, by splitting the rides into two ride segments, the measures of reactivity may have picked up on the same variation as the ride (or shift) level multivariate analysis. The one exception is ANY_OBS which has a negative and significant relationship with NSUSPIH1. Officers are less likely to patrol aggressively

the more times they ride with any observer.

Second, HOUR1 is a significant predictor of all three types of officer behavior net of the effects of both controls and significant measures of reactivity. More specifically, HOUR1 is a significant predictor of officer behavior in *every equation* in Table 9.13. Table 9.14 contains the PRMs for HOUR1 for each type of officer behavior. HOUR1 has a negative and significant relationship with each measure of officer behavior. Officers are about 72% less likely to goof off during the first hour of the shift compared to the rest of the shift. Similarly, officers patrol less aggressively during the first hour of the shift. More specifically, officers are about 57% less likely to engage in officer initiated activities and are 92% less likely to investigate suspicious circumstances with observers during the first hour of the shift compared to the rest of the shift.

Summary and conclusion

This chapter examined POPN observational data to see if indicators of reactivity were significant predictors of intraride variation in patrol officer behavior by focusing on three types of patrol officer behavior utilized in the ride level analysis in Chapter 7 (NGOOF, NOINIT, NSUSPI). Two different units of analysis were created to measure intraride variation in patrol officer behavior. Rides were split into four quarters ("quarter shift" ride segment analysis) and into two parts ("first hour versus rest of the shift" ride segment analysis). Multivariate findings indicate that there is a large degree of overlap between the ride level analysis conducted in Chapter 7 and the ride segment analysis in this chapter.[184]

In order to determine if officer behavior was changing over the course of the shift, multiplicative interaction terms were created. The crux of both the "quarter shift" and

"first hour versus rest of shift" ride segment multivariate analysis was to determine if either QTR (the four category variable that measures if the ride segment fell into the first, second, third, or fourth quarter of the shift), HOUR1 (dichotomous variable which specified whether the ride segment was in the first hour or not) and/or the interaction term between QTR/HOUR1 and the various measures of reactivity were significant predictors of officer behavior. Although none of the multiplicative interaction terms were significant in the two components of the ride segment analysis, both QTR and HOUR1 were significant predictors of officer behavior net of the effects of controls. Overall, officers were suppressing their behavior by goofing off less often and patrolling less aggressively during early stages of the ride. The strongest effects occurred when comparing the first hour of the shift versus the rest of the ride as opposed to looking for a more gradual change in officer behavior over the course of the ride by dividing the ride into quarters. These findings are consistent with anecdotal evidence from both the qualitative data and the field research literature which suggest that: (1) officers will significantly alter their behavior during early stages of their relationship with the observer; and (2) it takes time for an officer to adjust to the presence of the observer over the course of a shift. However, additional baseline data on patrol officer behavior with and without an observer is needed in order to determine if this is a true reactive effect, or just patrol officers part of an informal norm of "taking it easy" during early stages of the shift when there is overlap between consecutive shifts (i.e., the overlap between patrol officers working evening shift and midnight shift).

CHAPTER TEN – Conclusion

The purpose of this chapter is to briefly review criticisms of the face validity of observational data, summarize the key findings from this study, discuss the limitations of this piece of research, highlight the practical and policy implications of this study, as well as outline areas of future research.

Face validity of observational data

Critics have challenged the face validity of observational data since observers could "bias" or contaminate observational data by either causing research subjects to react to their presence and engage in atypical behavior or by inaccurately documenting observed events. Observer bias could act as a systematic bias and mask or alter the true relationships between independent and dependent variables. This can lead to mistaken inferences being drawn from studies which utilize observational data.

Anecdotal accounts from small scale field research projects conducted by anthropologists and qualitative field researchers were used to identify four types of observer bias (reactivity, culture shock, going native, and burnout). However, beyond anecdotal and fragmented accounts of problems encountered while in the field, no one has attempted to: (1) operationalize observer bias; or (2) assess its impact on the face validity of observational data due to a lack of data.

Although there are scattered allusions to the other three types of observer bias, the

vast majority of the literature focuses on reactivity. As a result, observational data from the Project on Policing Neighborhoods (POPN) was used to assess the qualitative and quantitative impact of reactivity on the quality of police observational data. The large number of observers within the same police organization along with the scope of data collected presented a unique opportunity to examine the impact of an observer's presence on the quality of police observational data.

Key findings

Describing reactivity

POPN data collection included the documentation of qualitative data on reactivity. Observers did not just document reactivity narrowly and focus exclusively on behavioral change. Instead, observers also recorded *why* officers reacted to their presence. At times, officers would give explicit verbal or behavioral cues when reacting to the presence of the observer (e.g., "let's do a traffic stop since you look bored"). At other times, comments from officers suggested the potential for reactivity (i.e., when officers expressed concerns about safety).

Observers also acted as a catalyst for reactivity by helping officers and becoming the lightning rod for jokes. Supervisors and dispatchers were also potential indirect causes of reactivity by being selective when pairing observers with officers and by screening out dangerous calls for service. Sometimes officers took matters into their own hands and intentionally avoided observation.

A coding scheme was used as a framework to categorize and describe both reactivity (behavioral changes on the part of patrol officers) and the social processes and social cues that accompany reactivity in order to specify the frequency of these themes

within POPN qualitative data. The structure of POPN data collection also allowed for ride level and encounter level multivariate analyses with the coded qualitative data and a multitude of control variables within the larger quantitative data set. A pattern of significant findings based on the coding scheme derived from the qualitative data while controlling for more traditional explanations of patrol officer behavior will be interpreted as evidence of a pattern of bias within the data.

Multivariate analyses: the qualitative coding

A deeper understanding about the behavioral or verbal "cues" of reactivity within the qualitative data could: (a) uncover additional forms of patrol officer behavior susceptible to reactivity; and (b) uncover more proximate indicators of reactivity in order to more accurately assess the impact of reactivity on the quality of observational data. Chapters 7, 8, and 9 contain detailed summaries of the multivariate analysis which was conducted at three different units of analysis: encounters with citizens, ride or shift level officer behavior, and intraride variation in patrol officer behavior. The purpose of this section is to: (1) highlight patterns of significant multivariate findings; and (2) highlight aspects of the qualitative coding that are significant across these different units of analysis.

Table 9.1 contains a summary of multivariate findings for the qualitative coding that cuts across the encounter level (arrest and use of force) and ride level analyses conducted in Chapter 7 and 8 respectively. I will underscore the multivariate findings for four measures of reactivity included in this table.

SC and SCBRK

First, patrol officers who act self-conscious (SC) or act self-conscious about

taking breaks or running errands (SCBRK) are not taking fewer breaks and shorter breaks, but just the opposite. One possible interpretation of this counterintuitive finding is that the officers who act self-conscious are, in layman's terms, "slackers" who may fear that the observer will notice when they check themselves out of service for long periods of time while taking breaks and running errands and report their actions.

SAFE

Second, when patrol officers express concerns about safety (SAFE), they are less likely to arrest, less likely to goof off, but more likely to investigate suspicious circumstances. In other words, SAFE is a significant predictor of both officer arrest behavior at the encounter level and more general measures of officer behavior over the course of the shift. One interpretation for this pattern of findings is that officers are trying to shield observers from arrest behavior, but still trying to stay busy, taking fewer breaks while trying to expose them to exciting aspects of police work such as investigating suspicious circumstances during their discretionary time. Officers who express concerns about safety may patrol aggressively, but may not feel comfortable having their arrest behavior critiqued by observers.

OBSHELP, HELPPW, HELPARR

Third, the only aspect of the qualitative coding which is a significant predictor of use of force are the three measures of times when observers help officers (OBSHELP, HELPPW, HELPARR). When observers help officers (OBSHELP), help them with police work (HELPPW), or help with an arrest (HELPARR), officers are more likely to use force against suspects, but only at the low end of the force continuum (restraint versus no force). This finding is consistent with the hypothesized effect of OBSHELP on use of

force.

One possible interpretation of this finding is that officers may feel more comfortable using force against suspects since the observer had previously demonstrated that s/he would help the officer if need be. In other words, the observer has proven him/herself a worthy substitute for waiting for backup. Another possible interpretation of this finding is that observers are usually called upon to help the officer when the officer faces an immediate need to use force against a citizen. In other words, observers don't help an officer and build good will and trust over the course of the shift. Instead, observers "jump right in" when called upon. Since the three measures of HELP are significant at the low end of the force continuum, it is possible that the officer could anticipate when he would need to use force against a citizen and tell the observer to be ready.

However, this is probably not the case. The ways that observers helped officers in the measures of OBSHELP and HELPPW were often innocuous and not remotely related to the arrest or use of force against suspects. For example, observers would help officers by (1) telling an officer if he left his emergency lights on when unloading his equipment at the end of the shift; (2) walking two blocks to get gas after the patrol officer's car ran out of gas; or (3) helping the officer with a computer problem. Given that all three measures of HELP were significant predictors of use of force (rather than just HELPARR), it is more likely that officers were more comfortable using force in the presence of observers who had build up good will and rapport by helping out in relatively innocuous ways over the course of the shift.

TIFINTER

Finally, based on the two measures of aggressive patrol, patrol officers were more likely to engage in officer initiated activities (NOINIT and TOINIT), but less likely to investigate suspicious circumstances during rides when observers felt officers significantly changed their behavior from one ride to another (TIFINTER). In other words, the "hunch" that observers had about interride variation in patrol officer behavior is supported by a larger pattern of officer behavior within the observational data that cuts across two different measures of aggressive patrol.

Multivariate findings: observer sex and status congruency

Table 9.2 summarizes the multivariate findings for observer sex and status congruency for both the encounter level analysis overviewed in Chapter 7 and ride level analysis conducted in Chapter 8. For the different combinations of officer and observer sex, officers were less likely to arrest for three out of four of the possible combinations. However, the findings were split for the two different measures of aggressive patrol. Officers were *less likely* to spend time with officer initiated activities for two out of the four possible combinations of officer and observer sex, but were *more likely* to expose observers to potentially dangerous situations while investigating suspicious circumstances for two out of the four possible combinations of officer and observer sex.

Given the split in the findings, it is possible that these two measures of aggressive patrol are tapping into different aspects of officer behavior. Patrol officers may capitalize on any and all opportunities to expose observers to "exciting" aspects of police work (such as investigating suspicious circumstances). However, since these opportunities are so few and far between, investigating suspicious circumstances does not negate the

overall effect of spending less time on aggressive patrol (TOINIT).

Finally, officers were more likely to engage in officer initiated activities when observers and officers who were demographically similar (age, sex, and education). This finding is also consistent with hypothesized effects specified in Chapter 8.

Multivariate findings: TIF

Table 9.3 contains a summary of the multivariate findings for TIF. The purpose of this section is to compare/contrast the multivariate findings for continuous and categorical measures of TIF. By way of comparison, there is considerable overlap between the multivariate findings for continuous and categorical measures of TIF. More specifically, both NUMBEATS and HIBEAT are significant predictors of use of force at the low end of the force continuum. Similarly, OBS_O1 and COBS_O1 as well as ANY_OBS and CANY_OBS are both significant predictors of NOINIT and TOINIT. Finally, RIDESEQ and EARLYSEQ/MIDSEQ as well as NUMDAYS and EARLYDAY/MIDDAYS are significant predictors of TSUSPI.

However, the overlap is not complete. In other words, categorical measures of TIF are not redundant measures of continuous TIF. Use of force is the clearest example of this phenomenon. NUMBEATS has mixed findings (both positive and negative findings) with use of force, while HIBEAT was not even included in the multivariate analysis of use of force (due to a lack of a bivariate relationship with use of force). Similarly, COBS_O1 and CANY_OBS are significant predictors of use of force at the high end of the force continuum (physical force versus no force and physical force versus restraint), while analogous continuous measures were not included in the multivariate analysis.

On a similar note, continuous measures of RIDESEQ and NUMDAYS were not significant predictors of investigating suspicious circumstances (NSUSPI), while categorical measures (EARLYSEQ/MIDSEQ, EARLYDAY/MIDDAYS) were positive and significant predictors of this dependent variable.

Overall, both measures of the number of direct contacts between officers and observers (e.g., OBS_O1, ANY_OBS, NUMBEATS) and the more general passage of time (RIDESEQ and NUMDAYS) were significant predictors of officer behavior. In fact, *all of the measures of TIF (both categorical and continuous) were significant predictors of officer behavior in at least one multivariate equation. In addition, all measures of TIF were also significant predictors of officer behavior in both the encounter level analysis and ride level analysis.* In other words, the findings suggest that patrol officer behavior may react to the presence of the observer and change their behavior over the course of fieldwork. However, definitive conclusions about this reactive effect should be corroborated by: (1) ruling out alternate explanations; and (2) comparing police behavior with an observer versus police behavior when unaccompanied by an observer.

Multivariate findings: ride segment analysis

Table 9.3 also contains a summary of the ride segment multivariate analysis. Both measures of intraride variation (QTR and HOUR1) were significant predictors of at least one type of officer behavior. HOUR1 was a significant predictor in three out of three multivariate equations. As a result, the interpretation of the effects of TIF on POPN observational data is complex. On the one hand, the pattern of the findings suggests that officers are changing their behavior over the course of the shift: they are sheltering observers by taking fewer breaks and patrolling less aggressively during the early portion

of a shift. However, continuous and categorical measures of TIF suggest that officers are also changing their behavior from one shift to another. While the ride segment analysis suggests a suppression of officer behavior, the ride level analysis and encounter level analysis that looked at use of force suggests that officers are more likely to use force and patrol aggressively for one out of two measures of aggressive patrol (NOINIT and TOINIT). However, officers are less likely to investigate suspicious circumstances (NSUSPI and TSUSPI). Given the inconsistent direction of effects in the ride level analysis (which looked at interride variation in patrol officer behavior) and the ride segment analysis (which looked at intraride variation in patrol officer behavior), it is possible that POPN observational data could contain a complex pattern of suppression effects.

Limitations of the research

This study represents the first attempt to systematically operationalize and model the impact of reactivity on the face validity of observational data. POPN observational data provided a unique opportunity to measure reactivity with a large sample of 37 observers with different backgrounds who rode with officers about twenty times over the course of a summer's worth of fieldwork. However, several limitations of this research should be noted.[185]

First, to an unknown degree, each observer could have been more or less attentive and/or conscientious about recognizing and then recording reactivity. The potential for observer error is implicit in all observational data and this study is no exception. More importantly, although there were examples of violations of POPN policies recorded within the qualitative data on reactivity, there were incentives that would motivate

observers to *underestimate* the amount of reactivity for fear of appearing ineffective or failing to follow POPN guidelines.

Second, observer training may have unintentionally undermined the validity of some types of POPN observational data. More specifically, reactivity can be viewed as a tradeoff between: (1) building rapport with patrol officers and making them feel at ease; and (2) helping officers in little tasks as a way of showing a sense of "teamwork" so that officers would feel more at ease, as if they were with a partner. The concern was that if observers unilaterally refused to help patrol officers in any way, patrol officers would have felt far more uneasy with their presence and more inclined to change their behavior as a consequence. Observers were instructed to use their judgment, but to help patrol officers if: (1) the patrol officer was in danger; or (2) if helping the officer in more minor aspects of police work would either establish or strengthen rapport and set the officer at ease. POPN instruments included a coded item for each event within a ride, which specified when and how an observer helps a patrol officer with police work. Since observer training encouraged them to help patrol officers in an effort to build rapport, POPN observational data could overestimate this form of reactivity. However, the quantitative findings suggest that officers will react to the presence of observers who help them by becoming more likely to use force.

Third, there is no way to compare patrol officer behavior *without* an observer to patrol officer behavior *with* an observer using POPN observational data utilized in this study. In other words, there is no baseline of officer behavior to use as a point of comparison to estimate the effect of an observer's presence on officer behavior (e.g., more or less proactive). In addition, if reactivity is caused by the presence of the

observer, reactive effects will be strongest when comparing patrol officer behavior with an observer to patrol officer behavior without an observer. Instead, this analysis focused on examining variation in patrol officer behavior *during fieldwork* attributable to: (1) the social dynamics of reactivity outlined in this chapter; (2) observer sex; (3) the level of congruency between observer and patrol officer characteristics; and (4) TIF. However, given that this is a relatively weak test of reactivity (i.e., only comparing variation in officer behavior over the course of fieldwork as opposed to comparing officer behavior with and without an observer), the pattern and prevalence of multivariate findings cannot be easily dismissed.

Fourth, the rationale for the multivariate analysis was to interpret variation in POPN observational data that is attributable to the measures of reactivity rather than more traditional explanations of police behavior, which acted as control variables in this analysis. In other words, inferences about the validity of police observational data were made based on the fact that measures of reactivity were significant predictors of officer behavior net of the effects of controls. It could be argued that this analysis of reactivity has provided additional factors (which are significant net of the effects of controls) which need to be added to theories of police behavior which utilize police observational data. However, assessing the impact of reactivity on the face validity of observational data would require much more information about reactivity as a social process as well as more detailed observational data (or other sources of data) to cross-validate the accuracy of officer behavior documented by observers.

Practical/policy implications

Observational data form the foundation of a large body of our knowledge about

the behavior of criminals and criminal justice actors. Observational data is also a powerful tool in the study of police discretion since a large amount of police behavior falls short of the paper trail of official actions taken by police officers. The pattern of the findings suggests that reactivity could act as a systematic bias and mask or alter the true relationships between independent and dependent variables. This can lead to mistaken inferences being drawn from any study[186] which utilizes observational data. Specific studies of policy and practice in policing utilizing observational data include: (1) how styles of policing change after the implementation of community policing (e.g., Mastrofski et al. 1995); (2) disentangling the impact of factors which influence a police officer's discretionary decision making (e.g., Worden 1989); and (3) the use of observational data to measure the policy impact of mandatory arrest statutes for domestic violence (see Ferraro 1989). Other large scale data collection projects which incorporate observational methods and systematic social observation (such as the Project on Human Development in Chicago Neighborhoods) (Samspson and Raudenbush 1999) may also benefit from the insights drawn from this research.

The findings from this study also suggest specific aspects of police observational data which could be affected the most by reactivity. Given that the power to arrest and use force are arguably the two cornerstones of the role of the police, this analysis suggests that traditional explanations of these forms of police behavior need to account for the impact of an observer's presence on patrol officer behavior. The context of patrol officer arrest behavior and use of force behavior (i.e., situational factors) was incorporated into multivariate models in this study. If the one of the purposes of research on the decision to arrest and use force is to better understand the dynamics of police-citizen encounters (i.e.,

how officers interpret specific situational factors) (Worden 1995), the findings from this study suggest that the presence of the observer is an important (and significant) part of that context. On a similar note, what an observer is permitted to see (or what an officer is comfortable showing an observer) may depend on a number of factors (e.g., the measures of reactivity) that have been examined for the first time in this paper. One theme within the qualitative data suggests that officers were intentionally avoiding observation which could undermine the representativeness of police work documented within observational studies of police.

As noted above, reactivity could act as a systematic bias and mask or alter the true relationships between independent and dependent variables leading to mistaken inferences being drawn from all studies which utilize observational data. For example, null findings for suspect race (or lack of evidence of racial profiling) in studies which focus on the decision to arrest could possibly be an artifact of reactivity rather than the result of "color blind" decision-making on the part of officers.

The findings from this study could also be useful for police supervisors. For example, some officers were initially treated observers with suspicion. Some officers felt that the observer may have been working for higher level police administrators in some capacity. Observers carried a description of the project and carefully explained that observers were not there to evaluate their behavior in any way. However, some officers may have been unconvinced since they continued to act hesitant and uncertain. Given the punitive nature of administrative control within police departments,[187] it is not surprising that some officers are nervous about being accompanied by an observer who may or may not be an informant for higher level administrators in the department.

In this study, reactivity deals with how officers react to the presence of *observers*. However, reactivity could also be thought of as a higher order concept which includes how officers react to the presence of *supervisors*. If officers mistook observers for representatives of police administration, there is no mistaking the presence of a supervisor. The pattern of behavioral change uncovered by this study may represent a relatively short adjustment period (where patrol officers behave atypically) before patrol officers become comfortable with the presence of the observer and begin to act normally. The same dynamic may occur with patrol officers and supervisors. Patrol officers may react to the presence of supervisors, especially in the early stages of their relationship, by acting atypically before adjusting to their presence and behaving as they normally do. As a result, supervisors should make an effort to get out into the field and make contact with their underlings in an effort to "speed up" the adjustment period in order to get a more realistic picture of typical patrol work by each officer.

In sum, reactivity is a process of penetrating the defenses of patrol officers and overcoming their suspicion and atypical behavior by establishing trust and rapport. Determining what officers normally do over the course of a shift (and how much of what they do is influenced by the presence of an observer or a supervisor) is an important first step in terms of increasing our understanding of reactivity, determining the effects of direct supervision on patrol officer behavior, and deepening our understanding of police field practices.

Future directions

The collection of observational data using systematic social observation is a complicated, labor intensive and expensive process. Given the large investment of

federal funds by NIJ in the systematic observation of the police at sites across the country, the importance of field research as a method of studying both discretionary decision making by criminal justice actors (see Walker 1992) and criminal behavior (Sampson and Raudenbush 1999), it is essential to determine if reactivity (or any other forms of observer bias) is undermining the reliability and/or validity of this data. There are a number of ways to incorporate the findings from this study into future observational studies of police in order to improve our understanding of the social dynamics of reactivity and the impact of reactivity on the face validity of observational data.

First, researchers should attempt to cross-validate these findings by collecting data which could compare patrol officer with an observer versus without an observer. Observational data on patrol officer behavior is very detailed, but very labor intensive and expensive to collect. However, future researchers could incorporate technology into their research designs to supplement findings on reactivity derived from observational data. More specifically, patrol cars could be equipped with "black boxes" which collect data on the speed of the patrol car, when the patrol car is idle, when it is stopped and the use of lights and sirens in order to determine if a patrol officer drives differently when accompanied by an observer versus without an observer. Another option may be to look at officer based charges or complaints with versus without an observer. Although there would not be enough of these types of charges to look at a specific officer or smaller geographic units, it may be possible to compare the number of charges and/or complaints for larger aggregations (i.e., for the department or district) by comparing the number during fieldwork to an equivalent time period when officers are not accompanied by observers.[188] In addition, dispatch related data from mobile data terminals (MDTs)[189]

could be used, for example, to see how often (and how long) patrol officers checked out of service for traffic enforcement and/or breaks in order to compare patrol officer behavior with versus without an observer.

Second, researchers should attempt to vary TIF in an attempt to increase our understanding of how time in the field is affecting the quality of observational data. For example, data collection for POPN was conducted over a 12 week period in two consecutive years in two different departments. By comparing the results from POPN data to observational studies of police which collected data over a longer period of time (i.e., 52 weeks or a year), it may be easier to determine if reactivity is due to the number of face to face contacts between officers and observers (e.g., OBS_O1, ANY_OBS, NUMBEATS) or if reactivity decreases simply due to the passage of time (e.g., NUMDAYS, RIDESEQ).

Third, researchers could incorporate some coded items to supplement the open ended qualitative data collected on reactivity. Several themes were highlighted in Chapter 6 based on my overview of the qualitative data on reactivity built into POPN data collection instruments. Although the open ended quality of the descriptive data provided valuable insights into the social dynamics of reactivity, selective use of coded data could: (1) results in better estimates of the frequency of these social and behavioral cues; and (2) increase our understanding of the impact of these cues (i.e., concerns about safety, self-consciousness, etc) on patrol officer behavior within the broader data set by utilizing this data in multivariate analyses. In addition, coded items could be included to see how often officers are avoiding observation in order to better understand the frequency and motivations behind this phenomenon as well as its impact on the representativeness of

police observational data.

Fourth, researchers should try to look at other types of officer behavior. For example, researchers could look at more dangerous aspects of police behavior (e.g., suspicion stops of citizens and traffic enforcement). General motorized patrol was not included in this analysis, but the pattern of negative effects for the HOUR1 multivariate ride segment analysis suggests that patrol officers may be engaging in increased levels of general motorized patrol as an innocuous way to "look busy".

On a similar note, the analysis of reactivity conducted on this study should not only include more types of officer behavior, but also be conducted on other types of officers. More specifically, this analysis focused on patrol officer behavior. However, an analogous analysis should also be conducted on supervisors since POPN observational data also included observational data on supervisor behavior. Since supervisors have even more discretionary time when compared to patrol officers, supervisors have more opportunities to react to the presence of an observer.

Fifth, a more in-depth analysis of how observers change the dynamics of police-citizen encounters could be conducted using POPN observational data. One theme within the POPN qualitative data was that the presence of the observer significantly changed the dynamics of police-citizen encounters. On a few occasions, citizens became enraged at the presence of the observer. Quantitative data from the encounter form was used to also identify instances when observers changed the dynamics of police-citizen encounters. Detailed information was also collected on each citizen involved in the encounter. The "citizen form" contains an item which asks if the specific citizen changed his/her behavior as a result of the presence of the observer. By including this information in

future analyses, we could develop a better understanding of: (1) how observers become the center of attention and exert a significant influence on citizen behavior; and (2) which citizens are most/least likely to react to the presence of an observer.

Finally, beyond anecdotal and fragmented accounts of problems encountered while in the field, no one has attempted to: (1) operationalize three other types of observer bias (culture shock, going native, and burnout); or (2) assess its impact on the face validity of observational data. Reactivity deals with the impact of an observer's presence on officer behavior. In other words, patrol officers change their behavior and "bias" observational data. In contrast, the other three types of observer bias deal with how *observers* can undermine the quality of observational data.

In short, reactivity focuses on how atypical behavior on the part of patrol officers could contaminate observational data. However, observer error is another part of the equation. Observers could either become overwhelmed and disoriented at early stages of fieldwork (culture shock), lose the objectivity necessary to collect accurate observational data (going native), or become fatigued due to the mentally taxing nature of field research (burnout). These three types of observer bias also affect observational data at different stages of fieldwork. Given the importance of TIF in this analysis of reactivity, it is possible that observer error could also undermine observational data at different stages of fieldwork. Researchers should also attempt to operationalize and assess the impact of these other types of observer bias on the face validity of police observational data.

The potential for reactivity within observational studies of police exists because

observers could act as an audience for police officers. Police officers could "react" to the presence of an observer by engaging in atypical behavior, especially during the early stages of fieldwork, when research subjects are suspicious of observers. Observers need to set officers at ease, alleviate their suspicion, and win their trust. Field researchers need to overcome any suspicion and build a relationship with a stranger (i.e., police officer) in order to collect accurate observational data. The field research literature alludes to the potential for reactivity, but does not attempt to determine: (1) what factors may act as triggers for reactivity; or (2) what types of behaviors are susceptible to reactivity.

This paper utilized POPN qualitative and quantitative data in order to: (a) operationalize reactivity; (b) specify behaviors susceptible to reactivity; and (c) determine if reactivity was an isolated instance or a systematic bias within POPN observational data. Verbal and behavioral cues from the qualitative data were utilized as indicators that officers were either at ease or uncomfortable with the presence of the observer. The field research literature suggested that observer sex could disrupt the normal behavior of patrol officers while the level of status congruency would make an officer feel more at ease.

The field research literature also suggests that reactivity will occur over time. Patrol officers need an adjustment period before they begin to act normally. The qualitative data reinforce the anecdotal accounts from other researchers. TIF was operationalized as: (1) the number of direct contacts between observers and officers; and (2) more general measures of the passage of time. The findings from this study are largely consistent with hypothesized effects. However, more knowledge about the interpersonal dynamics of reactivity would improve our knowledge about the face validity of police observational data. In essence, reactivity is the ultimate blind date. The officer

does not know what to expect. Two strangers are forced together. Researchers are attempting to orient themselves while patrol officers are attempting to "feel them out." This paper represents an important first step in our understanding of this dynamic, but observer error is another important threat to the face validity of observational data. The other three types of observer bias (culture shock, going native, burnout) represent another critical step in documenting and then measuring the impact of potential threats to the face validity of observational studies of the police.

Works cited

Adler, P.A. (1985) Wheeling and dealing New York: Columbia University Press.

Adler, P. A. and Adler, P. (1987a) Membership roles in field research Newbury Park, CA: Sage Publications.

Adler, P. A. and Adler, P. (1987b) "The past and future of ethnography" Journal of contemporary ethnography 16:1, 4-24.

Argyris, C. (1952) "Diagnosing defenses against the outsider" Journal of social issues 8:24-34.

Becker, H. (1970) Sociological work: method and substance Chicago: Aldine.

Becker, H. (1958) "Problems of inference and proof in participant observation" American sociological review 23:652-60.

Becker, H. and Geer, B. (1957) "Participant observation and interviewing: a comparison" Human organization 3:28.

Bennett, J. (1946) "The interpretation of Pueblo culture: a question of values" Southwestern journal of anthropology 2:361-74.

Berreman, G. (1962) Behind many masks: ethnography and impression management in a Himalayan Village Society for Applied Anthropology, Monograph No. 4, Ithaca, NY.

Bèteille, A. and Madan, T.N. (1975) "Introduction" in Bèteille, A. and Madan, T.N. (eds.) Encounter and experience: personal accounts of fieldwork Honolulu, Hawaii: University of Hawaii Press, p 1-12.

Black, D. (1980) Manners and customs of the police New York: Academic Press.

Bodgan, R. (1972) Participant observation in organizational settings Syracuse, NY: Syracuse University Press.

Briggs, J. (1970) "Kapluna daughter" in P. Golde (ed.) Women in the field: anthropological experiences Chicago: Aldine Publishing, p 19-46.

Brown, M. (1981) Working the street: police discretion and the dilemmas of reform New York: Russell Sage Foundation.

Bryk, A. and Raudenbush, S. (1987) "Application of hierarchical linear models to assessing change" Psychological bulletin 101:147-58.

Buckner, H. (1967) The police: the culture of a social control agency unpublished Ph.D. dissertation, University of California, Berkeley.

Caplan, P. (1993) "Introduction 2: the volume" in D. Bell, P. Caplan, and W. Karim (eds.) Gendered fields: women, men, and ethnography New York: Routledge, p 19-27.

Cass, E. (1991) The effects of interviewer demographic characteristics on self reported delinquency: a neglected are of methodological concern unpublished Ph.D. dissertation, University at Albany, State University of New York.

Cicourel, A. (1964) Method and measurement in sociology New York: Free Press.

Clarke, M. (1975) "Survival in the field: implications of personal experience in the field" Theoretical sociology 2:95-123.

Dean, J.; Eichhorn, R.; and Dean, L. (1969) "Establishing field relations" in G. McCall and J. Simmons (eds.) Issues in participant observation: a text and a reader New York: Random House, p 66-8.

Douglas, J. (1976) Investigative social research: individual and team research Beverly Hills, CA: Sage.

Dube, L. (1975) "Woman's worlds - three encounters" in A. Béteille and T. Madan (eds.) Encounter and experience: personal accounts of fieldwork Honolulu: University Press of Hawaii, p 157-77.

Du Bois, C. "Studies in an Indian town" in P. Golde (ed.) Women in the field: anthropological experiences Chicago: Aldine Publishing, p 221-36.

Dumont, J. (1978) The headman and I: ambiguity and ambivalence in the fieldworking experience Austin: University of Texas Press.

Easterday, L.; Papademas, D. Schorr, L. and Valentine, C. (1982) "The making of a female researcher: role problems in field work" in R. Burgess (ed.) Field research: a sourcebook and field manual London: George Allen & Unwin, p 62-7.

Emerson, R. (1983a) "Introduction: Part I" in R. Emerson (ed.) Contemporary field research: a collection of readings Prospect Heights, IL; Waveland Press, p 19-36.

Emerson, R. (1983b) "Introduction: Part III" in R. Emerson (ed.) Contemporary field research: a collection of readings Prospect Heights, IL; Waveland Press, p 175-89.

Emerson, R. (1983c) "Introduction: Part IV" in R. Emerson (ed.) Contemporary field research: a collection of readings Prospect Heights, IL; Waveland Press, p 255-68.

Emerson, R. (1981) "Observational field work" in R. Turner and J. Short (eds.) Annual review of sociology Palo Alto, CA: Annual Review, Inc., p 351-78.

Everhart, E. (1977) "Between stranger and friend: some consequences of 'long term' fieldwork in schools" American educational research journal 14:1, 1-15.

Ferraro, K. (1989) "Policing woman battering" Social problems 36:1, 61-72.

Ferrell, J. (1997) "Criminological *verstehen*: inside the immediacy of crime" Justice quarterly 14:1, 3-23.

Fielding, N. (1982) "Observational research on the National Front" in M. Bulmer (ed.) Social research ethics London: Macmillan, p 80-104.

Fischer, A. (1970) "Field work in five cultures" in P. Golde (ed.) Women in the field Chicago: Aldine Publishing Company, p 267-92.

Freidrichs, J and Ludtke, H (1975) Participant observation: theory and practice Lexington, MA: Lexington Books, D.C. Heath & Co.

Freilich, M. (1970) Marginal natives: anthropologists at work New York: Harper & Row.

Gans, H. (1982) "The participant observer as a human being: observations on the personal aspects of fieldwork" in R. Burgess (ed.) Field research: a sourcebook and field manual London: George Allen & Unwin, p 53-61.

Geertz, C. (1973) Interpretation of cultures New York: Basic Books.

Geertz, C. (1967) "Under the mosquito net" New York Review of Books 9:4, 12-3.

Georges, R. and Jones, M. (1980) People studying people: the human element in fieldwork Berkeley: University of California Press.

Gill, J. (2001) Generalized linear models: a unified approach Thousand Oaks, CA: Sage Publications.

Glazer, M. (1972) The research adventure: promise and problems of fieldwork New York: Random House.

Gold, R. (1958) "Roles in sociological field observations" Social forces 36:217-23.

Golde, P. (1970a) "Introduction" in P. Golde (ed.) Women in the field: anthropological experiences Chicago: Aldine Publishing, p 1-18.

Golde, P. (1970b) "Odyssey of encounter" in P. Golde (ed.) Women in the field: anthropological experiences Chicago: Aldine Publishing, p 67-93.

Gottfredson, G. (1996) "The Hawthorne misunderstanding (and how to get the Hawthorne effect in action research" Journal of research in crime and delinquency 33:1, 28-48.

Gove, W. and Geerken, M. (1977) "Response bias in surveys of mental heath: an empirical investigation" American journal of sociology 82:6, 1289-1317.

Gronewold, S. (1972) "Did Frank Hamilton Cushing Go Native?" in S. Kimball and J. Watson (eds.) Crossing cultural boundaries: the anthropological experience London: Chandler Publishing Co., p 33-50.

Guest, L. (1947) "A study of interviewer competence" International journal of opinion and attitude research 1:4, 17-30.

Gurney, J (1991) "Female researchers in male-dominated settings" in W. Shaffir and R. Stebbins (eds.) Experiencing fieldwork: an inside view of qualitative research Newbury Park, CA: Sage Publications, p 53-61.

Gurney, J. (1985) "Not one of the guys: the female researcher in a male dominated setting" Qualitative sociology 8:42-62.

Hammersley, M. and Atkinson, P. (1983) Ethnography: principles in practice New York: Tavistock Publications.

Herbert, S. (1996) "Morality in law enforcement: chasing "bad guys" with the Los Angeles Police Department" Law & society review 30:4, 799-818.

Heyns, R. and Lippitt, R. (1954) "Systematic observational techniques" in G. Lindzey (ed.) Handbook of social psychology Vol. 1, Reading, MA: Addison-Wesley Publishing Co., p 370-404.

Hoffman, J. (1980) "Problems of access in the study of social elites and boards of directors" in W. Shaffir, R. Stebbins, and A. Turowetz (eds.) Fieldwork experience: qualitative approaches to social research New York: St. Martin's Press.

Holmes, L. (1987) The quest for the *Real* Samoa: The Mead/Freeman controversy and beyond Massachusetts: Bergin & Garvey Publishers.

Homans, G. (1950) The human group New York: Harcourt, Brace.

Howell, N. (1990) Surviving fieldwork: a report on the advisory panel on health and safety in fieldwork Washington DC: American Anthropological Association.

Hunt, J. (1984) "The development of rapport through the negotiation of gender in field work among police" Human organization 43:4, 283-96.

Hyman, H; Cobb, W.; Feldman, J.; Hart, C.; and Stember, C. (1954) Interviewing in social research Chicago: University of Chicago Press.

Jaccard, J., Turrisi, R., Wan, Choi K. (1990) Interaction effects in multiple regression Newbury Park, CA: Sage publications.

Johnson, A. and Johnson, O. (1990) "Quality into quantity: on the measurement potential of ethnographic fieldnotes" in R. Sanjek (ed.) Fieldnotes: the makings of anthropology, Ithica, NY: Cornell University Press, p 161-86.

Johnson, J. (1975) Doing field research New York: The Free Press.

Johnson, M. (1953) "Seeing's believing" New biology 15:60-80.

Junker, B. (1960) Field work: an introduction to the social sciences Chicago: University of Chicago Press.

Kerlinger, F. (1986) Foundations of behavioral research third edition, Chicago: Holt, Rinehart and Winston, Inc.

Kirk, J. and Miller, M. (1986) Reliability and validity in qualitative research Newbury Park, CA: Sage Publications.

Kleinman, S. (1991) "Field workers' feelings: what we feel, who we are, how we analyze" in W. Shaffir and R. Stebbins (eds.) Experiencing fieldwork: an inside view of qualitative research Newbury Park, CA: Sage Publication, p 184-95.

Lee, R. (1995) Dangerous fieldwork Thousand Oaks, CA: Sage Publications.

Lofland, J. and Lofland, L (1984) Analyzing social settings: a guide to qualitative observation and analysis second edition, Belmont, CA: Wadsworth Publishing Co.

Long, J.S. (1997) Regression models for categorical and limited dependent variables, Advanced quantitative techniques in the social sciences, vol. 7, Thousand Oaks, CA: Sage Publications.

Maddala, G.S. (1992) Introduction to econometrics, (2nd ed.), New York: MacMillan Publishing Co.

Madan, T. (1975) "On living intimately with strangers" in Bèteille, A. and Madan, T.N. (eds.) Encounter and experience: personal accounts of fieldwork Honolulu, Hawaii: University of Hawaii Press, p 131-56.

Malinowski, B. (1967) A diary in the strictest sense of the word, New York: Harcourt, Brace, and World.

Manning, P. (1972) "Observing the police: deviants, respectables, and the law" in J. Douglas (ed.) Research on deviance New York: Random House, p 213-68.

Manning, P. (1976) "The researcher: an alien in the police world" in A. Niederhoffer and A. Blumberg (eds.) The ambivalent force: perspectives on police, Second edition, Hinsdale, IL: Dryden Press, p 103-20.

Marcus, G. (1983) "Rhetoric and the ethnographic genre in anthropological research" in J. Ruby (ed.) A crack in the mirror: reflexive perspectives in anthropology Philadelphia: University of Pennsylvania Press, p 163-72.

Martin, S. (1980) Breaking and entering: policewomen on patrol Berkeley: University of California Press.

Mastrofski, S. and Parks, R. (1990) "Improving observational studies of police" Criminology 28:3, 475-96.

Mastrofski, S.; Parks, R.; Reiss, A.; and Worden, R. (1998a) "Policing neighborhoods: a report from Indianapolis" National Institute of Justice Research Preview, July 1998.

Mastrofski, S.; Parks, R.; Reiss, A.; Worden, R.; DeJong, C.; Snipes, J.; Terrill, W. (1998b) "Systematic observation of public police: applying field research methods to policy issues" National Institute of Justice Research Report, December 1998.

May, T. (1993) "Feelings matter: inverting the hidden equation" in D. Hobbs and T. May (eds.) Interpreting the field: accounts of ethnography, New York: Oxford University Press, p 69-98.

McCall, G. (1969a) "Data quality control in participant observation" in G. McCall and J. Simmons (eds.) Issues in participant observation: a text and a reader New York: Random House, p 128-41.

McCall, G. (1978) Observing the law: field methods in the study of crime and the criminal justice system New York: The Free Press.

McCall, G. and Simmons, J. (1969) Issues in participant observation: a text and a

reader New York: Random House.

Mead, M. (1986) "Field work in Pacific islands, 1925-1967" in P. Golde (ed.) Women in the field: anthropological experiences Berkeley: University of California Press, p 293-331.

Mead, M. (1923) Coming of age in Samoa New York: William Morrow.

Muir, W. (1977) Police: streetcorner politicians Chicago: University of Chicago Press.

Nader, L. (1970) "From anguish to exultation" in P. Golde (ed.) Women in the field Chicago, IL: Aldine, p 97-118.

Neter, J., Kutner, M., Nachtsheim, C., Wasserman, W. (1996) Applied linear regression models Chicago: Irwin.

Norris, C. (1993) "Some ethical considerations on fieldwork with police" in D. Hobbs and T. May (eds.) Interpreting the field: accounts of ethnography, New York: Oxford University Press, p 123-43.

Parks, R.; Mastrofski, S.; Reiss, A.; Worden, R.; Terrill, W; DeJong, C.; Stroshine, M.; Shepherd, R. (1998) "St. Petersburg Project on Policing Neighborhoods: A Study of the Police and the Community" Report to the St. Petersburg Police Department, March 1998.

Parks, R.; Mastrofski, S.; Reiss, A.; Worden, R.; Terrill, W; DeJong, C.; Snipes, J. (1997) "Indianapolis Project on Policing Neighborhoods: A Study of the Police and the Community" Report to the Indianapolis Police Department, March 1997.

Parssinen, C. (1983) "Social explorers and social scientists: the dark continent of Victorian ethnography" in J. Ruby (ed.) A crack in the mirror: reflexive perspectives in anthropology Philadelphia: University of Pennsylvania Press, p 205-18.

Pearson, G. (1993) "Talking a good fight: authenticity and distance in the ethnographer's craft" in D. Hobbs and T. May (eds.) Interpreting the field: accounts of ethnography, New York: Oxford University Press, p vii-xx.

Pettigrew, J. (1981) "Reminiscences of fieldwork among the Sikhs" in H. Roberts (ed.) Doing feminist research Boston: Routledge & Kegan Paul, p 62-82.

Phillips, C. and Brown, D. (1997) "Observational studies in police custody areas: some methodological and ethical issues considered" Policing and society 7:191-205.

Pollner, M. and Emerson, R. (1983) "The dynamics of inclusion and distance in fieldwork relations" in Emerson, R. (ed.) Contemporary field research: a collection of

readings Prospect Heights, IL: Waveland Press, p 235-52.

Punch, M. (1989) "Researching police deviance: a personal encounter with the limitations and liabilities of fieldwork" British journal of sociology 40:2, 177-201.

Punch, M. (1986) The politics and ethics of fieldwork Beverly Hills, CA: Sage Publications.

Rabbinow, p. (1977) Reflections on fieldwork in Morocco Berkeley: University of California Press.

Rapp, D. (1965) "Detection of observer bias in the written record" Unpublished manuscript, University of Georgia.

Reisig, M. and Parks, R. (2000) "Experience, quality of life, and neighborhood context: a hierarchical analysis of satisfaction with police" Justice quarterly 17:3, 607-30.

Reiss, A. (1968) "Stuff and nonsense about social surveys and observation" in H. Becker (ed.) Institutions and the person, Chicago: Aldine, p 351-67.

Reiss, A. (1971) "Systematic observation of natural social phenomenon" in H. Costner (ed) Sociological methodology 1971 San Francisco: Jossey-Bass, p 3-33.

Rosenthal, R. (1976) Experimenter effects in behavioral research enlarged edition, New York: Halsted Press Division of John Wiley & Sons.

Rumbaut, R. and Bittner, E. (1979) "Changing conceptions of the police role: a sociological review" in Morris, N. and Tonry, M. (eds.) Crime and justice: a review of research Chicago: University of Chicago Press, Vol1, p 239-88.

Sampson, R. and Raudenbush, S. (1999) "Systematic social observation of public places: a new look at disorder in urban neighborhoods" American sociological review 105:3, 603-51.

Sanjek, R. (1990) "The secret life of fieldnotes" in R. Sanjek (ed.) Fieldnotes: the makings of anthropology, Ithica, NY: Cornell University Press, p 187-272.

Schatzman, L. and Strauss, A (1973) Field research: strategies for a natural sociology Englewood Cliffs, NJ: Prentice Hall.

Schwartz, M.S. and Schwartz, C.G. (1955) "Problems in participant observation" American journal of sociology 60:4, 343-53.

Shaw, C. (1930) The Jack Roller Chicago: University of Chicago Press.

Sherman, L. (1980) "Causes of police behavior: the current state of quantitative research" Journal of research in crime and delinquency 17:60-100.

Skolnick, J. (1966, 1975) Justice without trial New York: Wiley and Sons.

Smith, D. and Visher, C. (1981) "Street-level justice: situational determinants of police arrest decisions" Social problems 29:2, 48-57.

Spradley, J. (1979) The ethnographic interview New York: Holt, Rinehart & Winston.

Strauss, A.; Schatzman, L.; Bucher, R.; Ehrlich, D.; and Sabshin, M. (1969) "Field tactics" in G. McCall and J. Simmons (eds.) Issues in participant observation: a text and a reader New York: Random House, p 70-7.

Stavrianos, B. (1950) "Research methods in cultural anthropology in relation to scientific criteria" Psychological review LVII, 334-44.

Sudman, S. and Bradburn, N. (1974) Response effects in surveys: a review and synthesis Chicago: Aldine Publishing Co.

Tedlock, D. (1983) "Anthropological hermeneutics and the problem of alphabetic literacy" in J. Ruby (ed.) A crack in the mirror: reflexive perspectives in anthropology Philadelphia: University of Pennsylvania Press, p 149-62.

Thrasher, F. (1927) The gang Chicago: University of Chicago Press.

Van Maanen, J. (1988) Tales from the field Chicago: University of Chicago Press.

Van Maanen, J. (1983a) "The fact of fiction in organizational ethnography" in J. Van Maanen (ed.) Qualitative methodology Beverly Hills: Sage, p 37-55.

Van Maanen, J. (1983b) "On the ethics of fieldwork" in R. Smith (ed.) An introduction to social research: a handbook of social science Vol. 1, Cambridge, MA: Ballinger Publishing Co., p 227-51.

Van Maanen, J. (1982) "Fieldwork on the beat" in J. Van Maanen, J. Daabs, Jr., and R. Faulkner (eds.) Varieties of qualitative research Beverly Hills: Sage Publications, p 103-51.

Van Maanen, J. (1981) "The informant game" Urban life 9:4, 469-94.

Van Maanen, J. (1978a) "Epilogue: on watching the watchers" in P. Manning and J. Van Maanen (eds.) Policing: a view from the street Pacific Palisades, CA: Goodyear, p 309-49.

Van Maanen, J. (1978b) "The asshole" in P. Manning, and J. Van Maanen (eds.) Policing: a view from the street Santa Monica, CA: Goodyear, p 228-38.

Van Maanen, J. (1974) "Working the street: a developmental view of police behavior" in H. Jacob (ed.) The potential for reform of criminal justice Beverly Hills, CA: Sage.

Vidich, A. (1969) "Participation observation and the collection and interpretation of data" in G. McCall and J. Simmons (eds.) Issues in participant observation: a text and a reader New York: Random House, p 78-87.

Walker, S. (1992) "The origins of the contemporary criminal justice paradigm: the American Bar Foundation Survey, 1953-1969" Justice quarterly 9:47-76.

Warren, C. (1988) Gender issues in field research Newbury Park, CA: Sage Publications.

Wax, R. (1960) "Twelve years later: an analysis of field experience" in Human organization research R. Adams and J. Preiss (eds.), Homewood, IL: Dorsey Press, p 166-78.

Wax, R. (1971) Doing fieldwork: warnings and advice Chicago: University of Chicago Press.

Webb, E.; Campbell, D.; Schwartz, R.; and Sechrest, L. (1966) Unobtrusive measures: nonreactive research in the social sciences Chicago: Rand McNally & Company.

Weick, K. (1968) "Systematic observational methods" in G. Lindzey and E. Aronson (eds.) The handbook of social psychology, Vol. 2, second edition, Reading, MA: Addison-Wesley Publishing Co., p 357-451.

Werner, O. and Schoepfle, G. (1987) Systematic fieldwork: foundations of ethnography and interviewing Volume 1, Beverly Hills, CA: Sage publications.

Westley, W. (1970) Violence and the police: a sociological study of law, custom, and morality Cambridge, MA: MIT Press.

Wilson, J. (1978) Varieties of police behavior: the management of law and order in eight communities Cambridge, MA: Harvard University Press.

Wintrob, R. (1969) "An inward focus: a consideration of psychological stress in fieldwork" in F. Henry and S. Saberwal (eds.) Stress and response in fieldwork New York: Holt, Rinehart and Winston, p 63-76.

Worden, R. (1989) "Situational and attitudinal explanations of police behavior: a

theoretical reappraisal and empirical assessment" Law & society review 23:4, 667-711.

Worden, R. (1995) "Police officers' belief systems: a framework for analysis" American journal of police 14:1, 49-81.

Worden, R. (1996) "The 'causes' of police brutality: theory and evidence on police use of force" in W. Geller and H. Toch (eds.) Police violence New Haven, CT: Yale University Press, p 23-51.

Worden, R.; Shepard, R.; and Mastrofski, S. (1996) "On the meaning and measurement of suspects' demeanor toward police: a comment on 'demeanor and arrest'" Journal of research on crime and delinquency 33:3, 324-32.

Whyte, W. (1955) Street corner society Chicago: University of Chicago Press.

Whyte, W. (1988) "Doing research in Cornerville" in C. Smith and W. Kornblum (eds.) In the field: readings on the field research experience, New York: Praeger, p 69-82.

Yancey, W. and Rainwater, L. (1970) "Problems in the ethnography of the urban underclasses" in R. Habenstein (ed.) Pathways to data: field methods for studying ongoing social organizations, Chicago: Aldine Publishing, p 245-69.

TABLES AND APPENDICES

APPENDIX A: In-depth discussion of frequency tables for qualitative coding: percent rides and percent activities and encounters

This appendix is an effort to make the frequency tables derived from the qualitative coding easier to interpret for those unfamiliar with the POPN project or POPN terminology by: (1) discussing in-depth the rationale for column headings within the tables for "percent rides" and "percent activities and encounters"[190]; and (2) alerting the reader to some of the complexities of the qualitative coding by discussing the frequency counts within the tables on a column by column basis.

Table 6.1 gives a detailed breakdown of the *percent of rides* that an officer indicates s/he is self-conscious about the presence of an observer. The first column in Table 1 is the most general measure of self-consciousness. It is a combination of two forms of POPN qualitative data overviewed earlier in the text: "ride form reactivity" and "activities and encounters with reactivity."[191] The second and third columns are the percent of rides where the patrol officer indicated they are self-conscious in the ride form only (i.e., "ride form reactivity") and during events within a ride ("activities and encounters with reactivity"). The fourth column disaggregates the third column ("activities and encounters with reactivity") by specifying the percent of rides where patrol officers indicate they are self-conscious during encounters with citizens ("encounters with reactivity").[192] In other words, column four (all encounters within a ride) is a subset of events from column three (all events within a ride which are the sum of all activities and encounters within a ride).

As noted above, column one is a combination of column two and column three. However, column one is not always the sum of cases from column two ("ride form

reactivity") and column three ("activities and encounters with reactivity") since there are instances where there is some overlap between columns two and three. For example, an observer could document that a patrol officer gave indications that s/he was self-conscious when making an overall assessment of reactivity for the entire ride ("ride form reactivity") and also specify specific events within the *same* ride where an officer gave indications that s/he was self-conscious ("activities and encounters with reactivity"). These double counts within the qualitative coding cause the sum of cases from columns two and three to be greater than column one.

The first row of Table 6.1 is the most general measure of patrol officer self-consciousness. Rows two through ten for columns two, three, and four disaggregate the broadest measure of self-consciousness for "ride form reactivity", "activities and encounters with reactivity," and "encounters with reactivity" respectively into more detailed breakdowns of the manifestations of self-consciousness by patrol officers.

The coding of the qualitative data used for this analysis is at times more complex than the simple sum of cases from rows two through ten equaling row one. More specifically, there are two additional possibilities: (1) row one could be less than the sum of cases from rows two through ten; or (2) row one could be greater than the sum of cases from rows two through ten. If row one is less than the sum of cases from rows two through ten, then there is overlap between the more detailed manifestations of self-consciousness specified in rows two through ten since some rides are double counted by the more detailed coding in rows two through ten. For example, in column two ("ride form reactivity") a patrol officer could express concerns that an observer would not honor a promise of confidentiality (i.e., "lack trust" in the observer), become very nervous about

note taking by the observer and request to look at them (i.e., "look at notes") because s/he is afraid that the observer is evaluating his/her behavior (i.e., "fear evaluation"). If an officer gave these indications of self-consciousness within the same ride and the observer documented all of them while making an assessment of reactivity over the course of a ride ("ride form reactivity"), then the same ride would be coded into three different categories in the more detailed coding on manifestations of self-consciousness from patrol officers. As a result, the sum cases from rows two through ten in column two would be greater than row one.

A second possibility is that row one is greater than the sum of cases from rows two through ten.[193] This occurs because row one includes cases not specified in rows two through ten since either: (1) not all cases fell neatly into the categories specified in the more detailed coding in rows two through ten so; or (2) I was selective in highlighting the more common themes within the detailed coding (rows two through ten) and chose not to include less common themes (e.g., themes with only one case) within the table.

While Table 6.1 contains frequency counts of self-consciousness aggregated to the ride level (percent rides), Table 6.2 gives frequency counts for the *percent of activities and encounters* (or events) within a ride.[194] The first column of Table 6.2 is the percent of *all* activities and encounters where an officer indicates s/he is self-conscious about the presence of the observer.[195] The second column of Table 6.2 is a subset of cases of self-consciousness from column one (percent of *officer initiated* activities and encounters) but with a different base rate (N=18,889 versus N=35,431). One theme within the qualitative data (which will be discussed in depth later in this chapter) is that patrol officers change their behavior during their discretionary time (i.e., when free from calls for service).

Column two is an effort to see if officers are more likely to react to the presence of an observer when free from calls for service.

Column three and column four look at the percent of *all* encounters and *officer initiated* encounters where an officer indicates s/he is self-conscious about the presence of the observer. Similar to columns one and two, columns four is a subset of cases of self-consciousness from column three but with a different base rate (N=3,923 versus N=7,443).

Similar to Table 6.1 (percent rides), the first row of Table 6.2 the most general measure of patrol officer self-consciousness. Rows two through ten disaggregate the broadest measure of self-consciousness into more detailed frequency counts of the manifestations of self-consciousness by patrol officers. The number of cases in rows two through ten do not always add up to row one (e.g., the sum of the cases in row two through ten in column one is 110, while the number of cases in row one for this column is only 98) since there is overlap between the more detailed breakdown of manifestations of self-consciousness in rows two through ten.

Table 4.1: Definition and operationalization of reactivity

Definition of reactivity The presence of an observer changes the behavior of research subject(s).	
Independent variables	**Dependent variables**
Time in the field Observer's demographic characteristics – age, sex, social class Observer's attitudes toward police Status incongruency – level of demographic (age, sex, social class), attitudinal (attitudes about the role of police and observer's with positive attitudes toward police), and experiential (observers with experience in law enforcement or aspirations for a career in law enforcement) dissimilarity between officer and observer Stability of observer's beat assignment	Officer's use of discretionary time: (a) Break time (b) Time spent running errands (c) Leave work early Use of force Proactive police behavior: Traffic enforcement Officer initiated encounters with citizens (e.g., suspicion stops) Arrest Length of debriefings following encounters
Control variables	
(1) Activity level of shift: shift; day of the week; number of calls for service per shift; number of encounters with citizens per shift; level of crime within the beat; and staffing level.	
(2) Patrol officer's work orientation: length of service; attitudes about importance of proactive police behavior, formal versus informal sanctions, traffic enforcement, DUI enforcement, and domestic disputes; attitudes toward management and perceived level of respect from citizenry.	
(3) Situational factors: seriousness of problem; number of bystanders; evidentiary strength; demeanor of suspect; victim-suspect relationship; victim preference for arrest; race, social class, age, and sex of victim; race, social class, age, and sex of suspect; officer initiated encounter; visibility of encounter; presence of a weapon; evidence of drug use or intoxication of suspect; presence of other officers; use of informal sanctions by officer; disrespectful behavior toward police by suspect (e.g., name calling, betlitting remarks, slurs, cursing, ignoring officer's questions or requests, interrupting officer, obscene gestures, spitting, etc.); disrespectful behavior toward police by victim.	

Table 6.1: Percent of rides where patrol officer indicates s/he is SELF-CONSCIOUS about the presence of the observer

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Self-conscious (all cases)	20.9		15.4		8.5		2.2	
		(152)		(112)		(62)		(16)
Lack of trust			2.3		----		----	
				(17)		----		----
Visibly uncomfortable or privacy			3.3		3.7		.9	
				(24)		(27)		(7)
Look at notes			4.5		2.1		.4	
				(33)		(15)		(3)
Fear evaluation			3.3		.7		.4	
				(24)		(5)		(3)
Break/errand			5.5		4.0		1.0	
				(40)		(29)		(7)
Use of force			.3		.4		.3	
				(2)		(3)		(2)
Arrest			.3		----		----	
				(2)		----		----
Avoid observation			1.2		.4		----	
				(9)		(3)		----
N		729		729		729		726

Table 6.2: Percent of activities and encounters where patrol officer indicates s/he is SELF-CONSCIOUS about the presence of the observer

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters[1]		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Self-conscious (all cases)	.3		.4		.3		.5	
		(98)		(84)		(23)		(18)
Lack of trust	----		----		----		----	
		----		----		----		----
Visibly uncomfortable or privacy	.1		.2		.1		.2	
		(35)		(31)		(8)		(6)
Look at notes	.1		.1		.1		.1	
		(20)		(18)		(5)		(5)
Fear evaluation	<.1		<.1		.1		.1	
		(10)		(8)		(5)		(3)
Break/errand	.1		.2		.1		.3	
		(39)		(37)		(11)		(10)
Use of force	<.1		<.1		<.1		.1	
		(3)		(3)		(2)		(2)
Arrest	----		----		----		----	
		----		----		----		----
Avoid observation	<.1		<.1		----		----	
		(6)		(2)		----		----
N		35,431		18,889		7,443		3,923

[1]Officer initiated activities and encounters excludes general motorized patrol

Table 6.3: Percent of rides where patrol officer indicates s/he is ANGRY about the presence of the observer

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Patrol officer is angry (all cases)	10.8		10.4		2.3		.1	
		(79)		(76)		(17)		(1)
Caught off guard			8.5		1.1		.1	
				(62)		(8)		(1)
Confront supervisor			2.6		1.2		----	
				(19)		(9)		----
Complain about observer			.1		.1		----	
				(1)		(1)		
Break/errand			.7		----		----	
				(5)		----		----
Avoid observation			.4		.1		----	
				(3)		(1)		----
N		729		729		729		726

Table 6.4: Percent of activities and encounters where the patrol officer indicates s/he is ANGRY with the presence of observer

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Patrol officer is angry (all cases)	.1		.1		<.1		<.1	
		(47)		(27)		(1)		(1)
Caught off guard	.1		<.1		<.1		<.1	
		(18)		(9)		(1)		(1)
Confront supervisor	.1		.1		----		----	
		(29)		(18)		----		----
Complain about observer	<.1		<.1		----		----	
		(13)		(9)		----		----
Avoid observation	<.1		----		----		----	
		(1)		----		----		----
N		35,431		18,889		7,443		3,923

Table 6.5: Percent of rides where patrol officer expresses concerns about SAFETY

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Concerns about safety (all cases)	8.5		5.2		4.4		1.9	
		(62)		(38)		(32)		(14)
Shield observer from danger			.3		1.8		.8	
				(2)		(13)		(6)
Observer waits in car			1.6		1.5		.8	
				(12)		(11)		(6)
N		729		729		729		726

Table 6.6: Percent of activities and encounters where patrol officer expresses concerns about SAFETY

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Concerns about safety (all cases)	.1		.1		.2		.2	
		(40)		(20)		(14)		(9)
Shield observer from danger	<.1		<.1		.1		.1	
		(15)		(5)		(6)		(2)
Observer waits in car	<.1		<.1		.1		.1	
		(15)		(7)		(6)		(5)
N		35,431		18,889		7,443		3,923

Table 6.7: Percent of rides where the patrol officer indicates s/he is AT EASE with the presence of observer

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
At ease w/ observer (all cases)	42.4		40.5		3.3		1.4	
		(309)		(295)		(24)		(10)
Very friendly			8.9		----		----	
				(65)		----		----
Share personal problems			3.2		----		----	
				(23)		----		----
Neg comments abt other p/os or cits			3.7		----		----	
				(27)		----		----
Neg comments about police admin			7.1		----		----	
				(52)		----		----
Break/errands			3.8		.5		.1	
				(28)		(4)		(1)
Easy to debrief			19.3		----		----	
				(141)		----		----
Dark side of policing			4.0		2.5		1.2	
				(29)		(18)		(9)
N		729		729		729		726

Table 6.8: Percent of activities and encounters where the patrol officer indicates s/he is AT EASE with the presence of observer

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
At ease w/ observer (all cases)	.1		.2		.2		.2	
		(49)		(41)		(14)		(8)
Very friendly	----		----		----		----	
		----		----		----		----
Share personal problems	----		----		----		----	
		----		----		----		----
Neg comments abt other p/os or cits	----		----		----		----	
		----		----		----		----
Neg comments about police admin	----		----		----		----	
		----		----		----		----
Break/errands	<.1		<.1		<.1		<.1	
		(11)		(9)		(3)		(1)
Easy to debrief	----		----		----		----	
		----		----		----		----
Dark side of policing	.1		.2		.1		.2	
		(35)		(29)		(11)		(7)
N		35,431		18,889		7,443		3,923

Table 6.9: Percent of rides where the OBSERVER CAUSES REACTIVITY (CHANGES THE DYANMIC of police-citizen interactions or HELPS the patrol officer)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Change dynamic (all cases)	7.5		2.3		6.2		3.5	
		(55)		(17)		(45)		(25)
Citizen asks about observer			1.0		3.6		2.9	
				(7)		(26)		(21)
Observer as a distraction			1.5		3.0		.5	
				(11)		(22)		(4)
==========								
Observers help patrol officers (all cases)	10.7		1.9		10.0		6.7	
		(78)		(14)		(73)		(49)
Treat observer as partner			.5		----		----	
				(4)		----		----
Help with police work			1.2		8.1		4.7	
				(9)		(59)		(34)
Deals with citizens			----		1.0		1.0	
				----		(7)		(7)
Gives info/advice			.1		1.9		1.0	
				(1)		(14)		(7)
Arrest/detain suspects			.1		2.3		2.2	
				(1)		(17)		(16)
Help – 2+[1]			----		1.0		1.0	
				----		(7)		(7)
N		729		729		729		726

[1]Observer gives advice or helps officer with two or more of the following: (1) observer gives officer information or advice on how to conduct police work; (2) observer deals with citizens; or (3) observer helps

officer with police work.

Table 6.10: Percent of activities and encounters where OBSERVER CAUSES REACTIVITY (CHANGES THE DYNAMIC of interactions with citizens or HELPS patrol officer)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Change dynamic (all cases)	.2		.2		.4		.3	
		(66)		(42)		(31)		(10)
Citizen asks abt observer	.1		.1		.3		.2	
		(31)		(12)		(26)		(8)
Observer as a distraction	.1		.2		.1		.1	
		(36)		(31)		(5)		(2)
==========								
Observers help patrol officers (all cases)	.3		.4		.8		.9	
		(119)		(77)		(63)		(34)
Treat observer as partner	----		----		----		----	
		----		----		----		----
Help with police work	.3		.4		.6		.6	
		(99)		(67)		(43)		(24)
Deal with citizens	<.1		<.1		.1		.1	
		(7)		(3)		(7)		(3)
Gives info/advice	<.1		<.1		.1		.1	
		(15)		(9)		(7)		(3)
Arrest/detain suspects	.1		.2		.3		.4	
		(42)		(30)		(23)		(15)
Help – 2+[1]	.1		.1		.1		.2	
		(20)		(18)		(9)		(7)
N		35,431		18,889		7,443		3,923

[1]Observer gives advice or helps officer with two or more of the following: (1) observer gives officer information or advice on how to conduct police work; (2) observer deals with citizens; or (3) observer helps officer with police work.

Table 6.11: Amount of time observer helps patrol officer per shift – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=729)					
Time observer helps officer – all cases	73	1.0	180.0	47.4	48.8
Time observer helps – police work	59	1.0	180.0	54.1	51.4
Time observer helps – deals with citizens	7	1.0	40.0	12.7	12.6
Time observer helps – gives info/advice	14	.50	43.0	13.5	11.5
Time observer helps – arrest or detain suspect	17	1.0	176.0	65.5	54.4
Time observer helps – 2+[196]	7	1.0	166.0	72.4	61.5
ALL ENCOUNTERS (N=729)					
Time observer helps officer – all cases	49	.5	176.0	48.3	45.9
Time observer helps – police work	34	1.0	176.0	52.9	47.1
Time observer helps – deals with citizens	7	1.0	40.0	12.7	12.6
Time observer helps – gives info/advice	7	.5	43.0	19.5	13.1
Time observer helps – arrest or detain suspect	16	1.0	176.0	57.2	45.3
Time observer helps – 2+	7	1.0	113.0	50.3	40.3

Table 6.12: Amount of time observer helps patrol officer per event – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=35,431)					
Time observer helps officer – all cases	119	.50	180.0	29.1	35.0
Time observer helps – police work	99	.50	180.0	32.2	37.3
Time observer helps – deals with citizens	7	1.0	40.0	12.7	12.6
Time observer helps – gives info/advice	15	.50	43.0	12.6	11.0
Time observer helps – arrest or detain suspect	42	.50	99.0	26.5	29.4
Time observer helps – 2+[1]	20	1.0	85.0	25.4	26.2
OFFICER INITIATED ACTIVITIES & ENCOUNTERS (N=18,889)					
Time observer helps officer – all cases	77	1.0	180.0	27.7	36.3
Time observer helps – police work	67	1.0	180.0	29.8	38.2
Time observer helps – deals with citizens	3	1.0	13.0	7.3	6.0
Time observer helps – gives info/advice	9	3.0	43.0	13.4	12.3
Time observer helps – arrest or detain suspect	30	1.0	99.0	24.9	27.8
Time observer helps – 2+	18	1.0	67.0	18.9	18.3

1Observer helps patrol officer with two or more of the following: (a) police work; (b) gives patrol officer information or advice; or (c) deals with citizens.

Table 6.13: Amount of time observer helps patrol officer per encounter – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ENCOUNTERS (N=7,443)					
Time observer helps officer – all cases	63	.50	166.0	37.5	35.3
Time observer helps – police work	43	1.0	166.0	41.8	39.3
Time observer helps – deals with citizens	7	1.0	40.0	12.7	12.6
Time observer helps – gives info/advice	7	.50	43.0	19.5	13.1
Time observer helps – arrest or detain suspect	23	1.0	99.0	39.8	31.7
Time observer helps – 2+	9	1.0	85.0	39.1	28.5
OFFICER INITIATED ENCOUNTERS (N=3,923)					
Time observer helps officer – all cases	34	1.0	166.0	36.4	36.4
Time observer helps – police work	24	1.0	166.0	40.0	42.2
Time observer helps – deals with citizens	3	1.0	13.0	7.3	6.0
Time observer helps – gives info/advice	3	16.0	43.0	26.3	14.6
Time observer helps – arrest or detain suspect	15	1.0	99.0	37.2	31.2
Time observer helps – 2+	7	1.0	46.0	26.6	16.0

Table 6.14: Percent rides where an officer is MORE PROACTIVE (all cases)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
More proactive (all cases)	15.6		11.4		7.7		3.2	
		(114)		(83)		(56)		(23)
Show off			5.8		3.0		1.5	
				(42)		(22)		(11)
Self-conscious			2.2		.1		.1	
				(16)		(1)		(1)
Calls for service			1.2		1.4		.3	
				(9)		(10)		(2)
Aggressive patrol (officer initiated)			3.2		1.9		1.0	
				(23)		(14)		(7)
General motorized patrol			1.1		.4		----	
				(8)		(3)		----
Break/errand			2.3		----		----	
				(17)		----		----
Traffic enf			.5		1.0		.7	
				(4)		(7)		(5)
Tour			1.6		2.6		.1	
				(12)		(19)		(1)
N		729		729		729		726

Table 6.15: Percent of activities and encounters where officer is MORE PROACTIVE (all cases)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
More proactive (all cases)	.4		.6		.4		.6	
		(136)		(104)		(29)		(22)
Show off	.2		.3		.2		.2	
		(64)		(54)		(14)		(9)
Self-conscious	<.1		<.1		<.1		<.1	
		(1)		(1)		(1)		(1)
Calls for svc	.1		.1		<.1		----	
		(26)		(18)		(2)		----
Aggressive patrol (officer initiated)	.1		.2		.1		.2	
		(30)		(29)		(7)		(6)
General motorized patrol	<.1		<.1		----		----	
		(6)		(1)		----		----
Break/errand	----		----		----		----	
		----		----		----		----
Traffic enf	<.1		.1		.1		.1	
		(14)		(11)		(5)		(5)
Tour	.1		.1		<.1		<.1	
		(36)		(26)		(2)		(1)
N		35,431		18,889		7,443		3,923

Table 6.16: Amount of time the patrol officer is MORE PROACTIVE per SHIFT – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=729)					
Time more proactive – all cases	56	1.0	146.0	31.6	29.8
Time more proactive – show off	22	3.0	65.0	28.2	18.4
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	10	2.0	53.0	23.5	18.0
Time more proactive – aggressive patrol	14	1.0	70.0	29.1	21.2
Time more proactive – general motorized patrol	3	21.0	103.0	50.0	46.0
Time more proactive – traffic enforcement	7	3.0	41.0	18.1	13.2
Time more proactive – tour	19	2.0	100.0	27.4	27.6
ALL ENCOUNTERS (N=726)					
Time more proactive – all cases	23	1.0	70.0	21.4	21.3
Time more proactive – show off	11	1.0	33.0	11.5	10.0
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	2	1.0	11.0	6.0	7.1
Time more proactive – aggressive patrol	7	1.0	70.0	24.3	26.5
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	1	2.0	2.0	2.0	----

Table 6.17: Amount of time the patrol officer is MORE PROACTIVE per EVENT – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=35.431)					
Time more proactive – all cases	136	.5	70.0	13.0	14.9
Time more proactive – show off	64	.5	65.0	9.9	11.2
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	26	.5	42.0	9.1	10.2
Time more proactive – aggressive patrol	30	1.0	70.0	13.6	15.0
Time more proactive – general motorized patrol	6	7.0	40.0	25.0	10.8
Time more proactive – traffic enforcement	14	1.0	25.0	9.1	8.3
Time more proactive – tour	36	.5	65.0	14.5	18.6
OFFICER INITIATED ACTIVITIES AND ENCOUNTERS (N=18,889)					
Time more proactive – all cases	104	.5	70.0	10.8	12.9
Time more proactive – show off	54	.5	38.0	8.7	8.1
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	18	.5	38.0	8.5	8.7
Time more proactive – aggressive patrol	29	1.0	70.0	12.4	13.9
Time more proactive – general motorized patrol	1	7.0	7.0	7.0	----
Time more proactive – traffic enforcement	11	1.0	25.0	7.0	6.8
Time more proactive – tour	26	.5	65.0	8.7	12.3

Table 6.18: Amount of time the patrol officer is MORE PROACTIVE per ENCOUNTER – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ENCOUNTERS (N=7,443)					
Time more proactive – all cases	29	1.0	70.0	17.0	19.1
Time more proactive – show off	13	1.0	53.0	12.5	15.8
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	2	1.0	11.0	6.0	7.1
Time more proactive – aggressive patrol	7	1.0	70.0	24.3	26.5
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	2	1.0	1.0	1.0	0.0
OFFICER INITIATED ENCOUNTERS (N=3,923)					
Time more proactive – all cases	22	1.0	70.0	18.5	20.1
Time more proactive – show off	9	1.0	33.0	9.8	11.5
Time more proactive – self-conscious	1	51.0	51.0	51.0	----
Time more proactive – calls for service	0				
Time more proactive – aggressive patrol	6	1.0	70.0	20.7	27.1
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	1	1.0	1.0	1.0	----

Table 6.19: Percent of rides where an officer is MORE PROACTIVE (officer stated change)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
More proactive (all cases)	8.1		4.9		4.5		1.4	
		(59)		(36)		(33)		(10)
Show off			3.6		----		----	
				(26)		----		----
Self-conscious			----		----		----	
				----		----		----
Calls for svc			.5		1.4		.1	
				(4)		(10)		(1)
Aggressive patrol (officer initiated)			2.3		1.2		.4	
				(17)		(9)		(3)
General motorized patrol			.7		.4		----	
				(5)		(3)		----
Break/errand			1.9		----		----	
				(14)		----		----
Traffic enf			.4		.6		.7	
				(3)		(5)		(5)
Tour			1.0		1.2		.1	
				(7)		(9)		(1)
N		729		729		729		726

Table 6.20: Percent of activities and encounters where an officer is MORE PROACTIVE (officer stated change)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
More proactive (all cases)	.2		.3		.1		.2	
		(74)		(57)		(11)		(9)
Calls for svc	.1		.1		<.1		----	
		(22)		(15)		(1)		----
Aggressive patrol (officer initiated)	.1		.1		<.1		.1	
		(25)		(25)		(3)		(3)
General motorized patrol	<.1		<.1		----		----	
		(5)		(1)		----		----
Break/errand	----		----		----		----	
		----		----		----		----
Traffic enf	<.1		<.1		.1		.1	
		(6)		(6)		(5)		(5)
Tour	.1		.1		<.1		<.1	
		(20)		(14)		(2)		(1)
N		35,431		18,889		7,443		3,923

Table 6.21: Amount of time the patrol officer is MORE PROACTIVE per SHIFT – officer stated change (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=729)					
Time more proactive – all cases	33	2.0	88.0	27.2	22.6
Time more proactive – calls for service	10	2.0	53.5	21.5	16.9
Time more proactive – aggressive patrol	9	5.0	55.0	27.7	19.0
Time more proactive – general motorized patrol	3	21.0	63.0	36.7	22.9
Time more proactive – traffic enforcement	6	3.0	25.0	12.2	8.7
Time more proactive – tour	9	5.0	88.0	33.2	28.9
ALL ENCOUNTERS (N=726)					
Time more proactive – all cases	10	1.0	33.0	9.3	11.0
Time more proactive – calls for service	1	1.0	1.0	1.0	----
Time more proactive – aggressive patrol	3	2.0	33.0	12.7	17.6
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	1	2.0	2.0	2.0	----

Table 6.22: Amount of time the patrol officer is MORE PROACTIVE per EVENT – officer stated change (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=35.431)					
Time more proactive – all cases	74	.5	65.0	12.1	13.0
Time more proactive – calls for service	22	.5	42.0	9.8	10.8
Time more proactive – aggressive patrol	25	2.0	33.0	10.0	8.3
Time more proactive – general motorized patrol	5	7.0	29.0	22.0	8.9
Time more proactive – traffic enforcement	6	3.0	25.0	10.2	7.8
Time more proactive – tour	20	.5	65.0	14.9	18.9
OFFICER INITIATED ACTIVITIES AND ENCOUNTERS (N=18,889)					
Time more proactive – all cases	57	.5	65.0	10.0	10.9
Time more proactive – calls for service	15	.5	38.0	9.6	9.1
Time more proactive – aggressive patrol	25	2.0	33.0	10.0	8.3
Time more proactive – general motorized patrol	1	7.0	7.0	7.0	----
Time more proactive – traffic enforcement	6	3.0	25.0	10.2	7.8
Time more proactive – tour	14	.5	65.0	10.5	16.5

Table 6.23: Amount of time the patrol officer is MORE PROACTIVE per ENCOUNTER – officer stated change (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ENCOUNTERS (N=7,443)					
Time more proactive – all cases	11	1.0	33.0	8.5	10.8
Time more proactive – calls for service	1	1.0	1.0	1.0	----
Time more proactive – aggressive patrol	3	2.0	33.0	12.7	17.6
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	2	1.0	1.0	1.0	0.0
OFFICER INITIATED ENCOUNTERS (N=3,923)					
Time more proactive – all cases	9	1.0	33.0	10.1	11.3
Time more proactive – calls for service	0				
Time more proactive – aggressive patrol	3	2.0	33.0	12.7	17.6
Time more proactive – general motorized patrol	0				
Time more proactive – traffic enforcement	5	3.0	25.0	10.4	8.6
Time more proactive – tour	1	1.0	1.0	1.0	----

Table 6.24: Percent of rides where officer is LESS PROACTIVE (all cases)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Less proactive (all cases)	2.7		1.0		1.9		.6	
		(20)		(7)		(14)		(4)
Observer as distraction			.1		----		----	
				(1)		----		----
Safety			.1		.3		----	
				(1)		(2)		----
Self-conscious			.1		.4		.1	
				(1)		(3)		(1)
Less aggressive patrol			.5		----		----	
				(4)		----		----
Vehicle pursuit			----		.3		----	
				----		(2)		----
Use of force or arrest			----		.4		.3	
				----		(3)		(2)
GMP			----		.1		----	
				----		(1)		----
Admin busy work			----		.3		----	
				----		(2)		----
Dispatch			.3		.7		----	
				(2)		(5)		----
N		729		729		729		726

Table 6.25: Percent of activities and encounters where officer is LESS PROACTIVE (all cases)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters[197]		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Less proactive (all cases)	<.1		.1		.1		.1	
		(15)		(12)		(4)		(3)
Observer as distraction	----		----		----		----	
		----		----		----		----
Safety	<.1		<.1		----		----	
		(3)		(2)		----		----
Self-conscious	<.1		<.1		<.1		<.1	
		(3)		(3)		(1)		(1)
Less aggressive patrol	----		----		----		----	
		----		----		----		----
Vehicle pursuit	<.1		<.1		----		----	
		(3)		(2)		----		----
Use of force or arrest	<.1		<.1		<.1		.1	
		(3)		(3)		(2)		(2)
Admin busy work	<.1		<.1		----		----	
		(2)		(2)		----		----
GMP	<.1		----		----		----	
		(1)		----		----		----
Dispatch	<.1		<.1		----		----	
		(5)		(4)		----		----
N		35,431		18,889		7,443		3,923

Table 6.26: Amount of time the patrol officer is LESS PROACTIVE per SHIFT – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=729)					
Time less proactive – all cases	14	1.0	83.0	20.1	22.8
Time less proactive - concerns about safety	2	1.0	33.0	17.0	22.6
Time less proactive - self-conscious	3	1.0	83.0	34.7	42.9
Time less proactive - vehicle pursuit	2	1.0	33.0	17.0	22.6
Time less proactive - use of force or arrest	3	20.0	83.0	48.0	32.1
Time less proactive - administrative busy work	2	10.0	17.0	13.5	4.9
Time less proactive - general motorized patrol	1	6.0	6.0	6.0	----
Time less proactive - dispatch	5	1.0	4.0	2.2	1.3
ALL ENCOUNTERS (N=729)					
Time less proactive – all cases	4	25.0	83.0	46.3	25.4
Time less proactive - concerns about safety	0				
Time less proactive - self-conscious	1	83.0	83.0	83.0	----
Time less proactive - vehicle pursuit	0				
Time less proactive - use of force or arrest	2	41.0	83.0	62.0	29.7
Time less proactive - administrative busy work	0				
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	0				

Table 6.27: Amount of time the patrol officer is LESS PROACTIVE per EVENT – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=35.431)					
Time less proactive – all cases	15	1.0	83.0	18.8	22.2
Time less proactive - concerns about safety	3	1.0	29.0	11.3	15.4
Time less proactive - self-conscious	3	1.0	83.0	34.7	42.9
Time less proactive - vehicle pursuit	3	1.0	29.0	11.3	15.4
Time less proactive - use of force or arrest	3	20.0	83.0	48.0	32.1
Time less proactive - administrative busy work	2	10.0	17.0	13.5	4.9
Time less proactive - general motorized patrol	1	6.0	6.0	6.0	----
Time less proactive - dispatch	5	1.0	4.0	2.2	1.3
OFFICER INITIATED ACTIVITIES & ENCOUNTERS (N=18,889)					
Time less proactive – all cases	12	1.0	83.0	19.9	23.6
Time less proactive - concerns about safety	2	4.0	29.0	16.5	17.7
Time less proactive - self-conscious	3	1.0	83.0	34.7	42.9
Time less proactive - vehicle pursuit	2	4.0	29.0	16.5	17.7
Time less proactive - use of force or arrest	3	20.0	83.0	48.0	32.1
Time less proactive - administrative busy work	2	10.0	17.0	13.5	4.9
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	4	1.0	4.0	2.5	1.3

Table 6.28: Amount of time the patrol officer is LESS PROACTIVE per ENCOUNTER – all cases (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ENCOUNTERS (N=7,443)					
Time less proactive – all cases	4	25.0	83.0	46.3	25.4
Time less proactive - concerns about safety	0				
Time less proactive - self-conscious	1	83.0	83.0	83.0	----
Time less proactive - vehicle pursuit	0				
Time less proactive - use of force or arrest	2	41.0	83.0	62.0	29.7
Time less proactive - administrative busy work	0				
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	0				
OFFICER INITIATED ENCOUNTERS (N=3,923)					
Time less proactive – all cases	3	25.0	83.0	49.7	30.0
Time less proactive - self-conscious	1	83.0	83.0	83.0	----
Time less proactive - dispatch	0				
Time less proactive - concerns about safety	0				
Time less proactive - vehicle pursuit	0				
Time less proactive - use of force or arrest	2	41.0	83.0	62.0	29.7
Time less proactive - general motorized patrol	0				
Time less proactive - administrative busy work	0				

Table 6.29: Percent of rides where officer is LESS PROACTIVE (officer stated change)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)[1]	
	%	#	%	#	%	#	%	#
Less proactive (all cases)	1.1		.7		.5		----	
		(8)		(5)		(4)		----
Less aggressive patrol			.4		----		----	
				(3)		----		----
Vehicle pursuit			----		.3		----	
				----		(2)		----
Use of force or arrest			----		.1		----	
				----		(1)		----
Admin busy work			----		.1		----	
				----		(1)		----
Dispatch			.3		.1		----	
				(2)		(1)		----
N		729		729		729		726

[1]There are no less proactive encounters where the officer explicitly stated a behavioral change.

Table 6.30: Percent of activities and encounters where officer is LESS PROACTIVE (officer stated change)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters[1]		% officer initiated encounters	
					%	#	%	#
Less proactive (all cases)	<.1		<.1		----		----	
		(5)		(4)		----		----
Less aggressive patrol	----		----		----		----	
		----		----		----		----
Vehicle pursuit	<.1		<.1		----		----	
		(3)		(2)		----		----
Use of force or arrest	<.1		<.1		----		----	
		(1)		(1)		----		----
Admin busy work	<.1		<.1		----		----	
		(1)		(1)		----		----
Dispatch	<.1		----		----		----	
		(1)		----		----		----
N		35,431		18,889		7,443		3,923

[1]There are no less proactive encounters where the officer explicitly stated a behavioral change.

Table 6.31: Amount of time the patrol officer is LESS PROACTIVE per SHIFT – officer stated change (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=729)					
Time less proactive – all cases	4	1.0	33.0	17.8	13.1
Time less proactive - vehicle pursuit	2	1.0	33.0	17.0	22.6
Time less proactive - use of force or arrest	1	20.0	20.0	20.0	----
Time less proactive - administrative busy work	1	17.0	17.0	17.0	----
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	1	1.0	1.0	1.0	----
ALL ENCOUNTERS[1] (N=726)					
Time less proactive – all cases	0				
Time less proactive - vehicle pursuit	0				
Time less proactive - use of force or arrest	0				
Time less proactive - administrative busy work	0				
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	0				

[1]There are no less proactive encounters where the officer explicitly stated a behavioral change.

Table 6.32: Amount of time the patrol officer is LESS PROACTIVE per EVENT – officer stated change (in minutes)

	N	Minimum	Maximum	Mean	Std. Deviation
ALL ACTIVITIES AND ENCOUNTERS (N=35.431)					
Time less proactive – all cases	5	1.0	29.0	14.2	11.6
Time less proactive - vehicle pursuit	3	1.0	29.0	11.3	15.4
Time less proactive - use of force or arrest	1	20.0	20.0	20.0	----
Time less proactive - administrative busy work	1	17.0	17.0	17.0	----
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	1	1.0	1.0	1.0	----
OFFICER INITIATED ACTIVITIES & ENCOUNTERS (N=18,889)					
Time less proactive – all cases	4	4.0	29.0	17.5	10.3
Time less proactive - vehicle pursuit	2	4.0	29.0	16.5	17.7
Time less proactive - use of force or arrest	1	20.0	20.0	20.0	----
Time less proactive - administrative busy work	1	17.0	17.0	17.0	----
Time less proactive - general motorized patrol	0				
Time less proactive - dispatch	0				

Table 6.33: Percent of rides where the patrol officer indicates his/her behavior changes over time (TIME IN THE FIELD)

Qualitative coding	% rides (ride form, activities, or encounters)		% rides (ride form only)		% rides (all activities and encounters)		% rides (all encounters)	
	%	#	%	#	%	#	%	#
Time in the field (all cases)	16.9		16.9		.1		----	
		(123)		(123)		(1)		----
Intraride (within a ride)			13.0		.1		----	
				(95)		(1)		----
Interride (btwn rides)			3.8		----		----	
				(28)		----		----
N		729		729		729		726

Table 6.34: Percent of activities and encounters where the patrol officer indicates his/her behavior changes over time (TIME IN THE FIELD)

Qualitative coding	% all activities and encounters		% officer initiated activities and encounters		% all encounters		% officer initiated encounters	
	%	#	%	#	%	#	%	#
Time in the field (all cases)	<.1		<.1		----		----	
		(6)		(3)		----		----
Intraride (within a ride)	<.1		<.1		----		----	
		(6)		(3)		----		----
Interride (btwn rides)	----		----		----		----	
		----		----		----		----
N		35,431		18,889		7,443		3,923

Table 6.35: Patrol officer's attitude toward observer for the first and last half hour of the shift

	Patrol officer's attitude toward observer for:	
	First ½ hour of shift %	Last ½ hour of shift %
Very negative	3.6	.4
Negative	8.0	1.4
Neutral	24.6	15.0
Positive	44.4	55.4
Very positive	19.5	27.8
N	729	729

Table 6.36: Reactivity embedded within social exchanges: social cues from patrol officers, observer behavior, and other factors

Social Cues	Patrol Officer Behavior
(1) Patrol officer is self-conscious a. patrol officer does not trust observer b. patrol officer is visibly uncomfortable c. patrol officer is self-conscious about note taking by observer	(1) Breaks and errands (2) Use of force (3) Patrol officer avoids observation (4) General motorized patrol (5) Decision to arrest (6) Patrol officer becomes more or less proactive
(2) Patrol officer is angry about having an observer forced upon them a. patrol officer becomes visibly upset b. patrol officer has an explosive outburst of anger and rage c. patrol officer gives observer the "cold shoulder"	(1) Patrol officer complains to other officers (2) Breaks and errands (3) Patrol officer avoids observation
(3) Patrol officer is concerned about safety	(1) Patrol officer attempts to shield observer from dangerous situations (2) Patrol officer becomes less proactive (3) Observer is told to wait in the patrol car
(4) Patrol officer is "at ease" with the presence of an observer a. patrol officer is very friendly b. patrol officer shares personal problems c. patrol officer complains about citizens, supervisors, or police administration d. patrol officer is comfortable taking breaks and running errands e. patrol officer is eager to share insight into his/her decision making processes f. patrol officer talks about or engages in improper police behavior or illegal activities	(1) Officer initiated activities and encounters (2) Breaks and errands (3) General motorized patrol (4) Patrol officer becomes more proactive
(5) Observer causes reactivity a. Citizens asks about the presence of an observer b. Observer distracts patrol officer c. Observer helps patrol officer with police work	(1) Decision to arrest (2) Officer initiated activities and encounters (3) Patrol officer becomes more proactive
(6) Supervisors and dispatchers cause reactivity a. Supervisor reassigns patrol officers b. Dispatchers screen out dangerous calls for service	(1) Skew sample of patrol officers under observation (2) Prevent observers from observing police behavior during dangerous situations
(7) Time in the field	(1) Intrashift variation in officer behavior (2) Intershift variation in officer behavior

Figure 6.37: The most common themes within POPN qualitative data (percent rides)

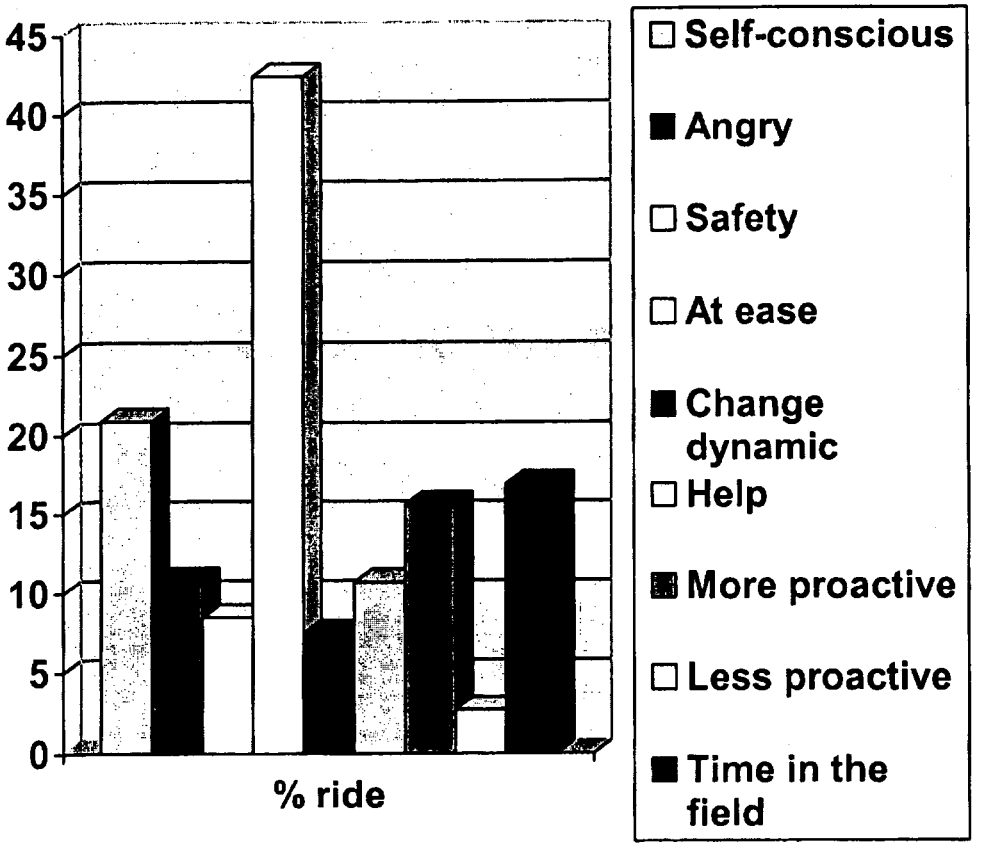


Figure 6.38: The most common themes within POPN qualitative data (percent events)

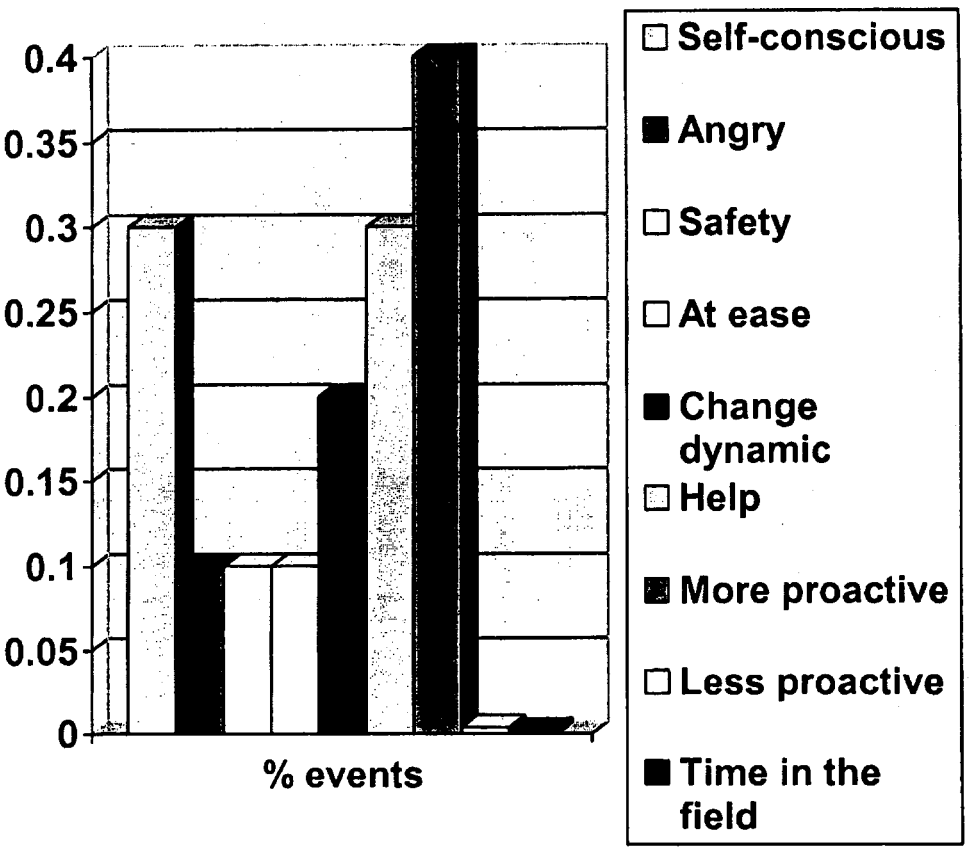


Table 7.1 – Variable description and descriptive statistics: arrest, use of force, and qualitative coding

	Description	Mean	Std. Dev.	N
Dependent var's				
Arrest	Dichotomous variable - 0=no arrest; 1=arrest	.21	.41	2292
Use of force	Ordinal variable – 0=no force or verbal threats of force; 1=restraint (e.g., nonpain compliance hold); 2=impact (e.g., pain compliance hold or striking citizen with body or weapon)	.20	.68	2488
Independent var's				
Qualitative coding				
Self-conscious (all cases)	Dichotomous variable – 0=patrol officer gives no indication of self-consciousness; 1=patrol officer gives indication of self-consciousness over the course of the shift (all cases).	.22	.48	2488
Self-conscious about use of force	Dichotomous variable – 0=patrol officer gives no indication of self-consciousness about use of force; 1=officer acts self-conscious about use of force due to presence of observer over the course of the shift	.01	.10	2488
Safety (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer expresses a concern about safety over the course of the shift (all cases)	.10	.30	2488
At ease (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates that s/he is at ease or comfortable with the presence of the observer over the course of the shift (all cases)	.43	.50	2488
Dark side of policing	Dichotomous variable – 0=no indication; 1=patrol officer engages in improper or illegal behavior in the presence of the observer over the course of the shift	.09	.29	2488

Table 7.1 – Variable description and descriptive statistics: arrest, use of force, and qualitative coding – cont'ed

	Description	Mean	Std. Dev.	N
Qualitative coding – cont'ed				
Change dynamic (all cases)	Dichotomous variable – 0=no indication; 1=observer changes the dynamic of patrol officer's interaction with citizens or colleagues over the course of the shift (all cases)	.07	.26	2488
Observer helps officer (all cases)	Dichotomous variable – 0=no indication; 1=observer helps patrol officer over the course of the shift (all cases)	.12	.33	2488
Observer helps officer with police work	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with police work over the course of the shift.	.09	.28	2488
Observer helps officer with arrest	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with an arrest over the course of the shift	.03	.18	2488
More proactive (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates s/he is more proactive over the course of the shift (all cases)	.16	.36	2488
More proactive (officer stated)	Dichotomous variable – 0=no indication; 1=patrol officer explicitly states that s/he is more proactive over the course of the shift	.08	.27	2488
Less proactive (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates s/he is less proactive over the course of the shift (all cases)	.03	.17	2488
Less proactive (officer stated)	Dichotomous variable – 0=no indication; 1=patrol officer explicitly states s/he is less proactive over the course of the shift	.02	.13	2488

Table 7.2 – Variable description and descriptive statistics: observer sex and status congruency

	Description	Mean	Std. Dev.	N
Observer sex				
Observer sex	Dichotomous variable – 0=female; 1=male.	.59	.49	2488
O1 & observer sex				
Male O1 & male observer	Dichotomous variable – 0=other; 1=male officer and male observer.	.47	.50	2488
Male O1 & female observer	Dichotomous variable – 0=other; 1= male officer and female observer	.34	.47	2488
Female O1 & male observer	Dichotomous variable – 0=other; 1= female officer and male observer	.10	.30	2488
Status congruency				
Age, sex, education, and observer's job aspiration	Ordinal variable – 0=officer and observer are different on these 4 dimensions; to 4=officer and observer are same age (within 5 years), sex, and levels of education (B.S. or better) and observer aspires to be a law enforcement officer.	1.35	.94	2163
Age, sex, education	Ordinal variable – 0=officer and observer are different age and sex and have different levels of education; to 3=officer and observer are same age (within 5 years), sex, and education level (B.S. or better)	.87	.79	2488

Table 7.3 – Variable description and descriptive statistics: continuous and categorical time in the field (TIF)

	Description	Mean	Std. Dev.	N
Time in the field (TIF)				
Continuous TIF				
OBS_O1	Interval variable - Number of times an officer rode with the *same* observer	1.35	.88	2488
ANY_OBS	Interval variable - Number of times an officer rode with *any* observer	2.20	1.58	2488
RIDESEQ	Interval variable - Sequence of rides for observers from first to last ride.	10.7	5.57	2488
NUMDAYS	Interval variable – Number of days of fieldwork from first to last day.	34.7	18.5	2488
NUMBEATS	Interval variable – Number of beats an observer rode in.	4.27	1.23	2478
Categorical TIF				
COBS_O1	Dichotomous variable – 0=other; 1=first time an officer rode with *same* observer.	.78	.41	2488
CANY_OBS	Dichotomous variable – 0=other; 1=first time an officer rode with *any* observer	.43	.50	2488
EARLYSEQ	Dichotomous variable – 0=other; 1=observer's first 5 rides.	.22	.41	2488
MIDSEQ	Dichotomous variable – 0=other; 1=observer's middle 8 rides	.43	.50	2488
EARLYDAY	Dichotomous variable – -0=other; 1=first ¼ of fieldwork (using 25% of rides as cutoff point)	.21	.41	2488
MIDDAYS	Dichotomous variable – 0=other; 1=middle 50% of fieldwork. (using 50% of rides as cutoff point)	.54	.50	2488
HIBEAT	Dichotomous variable – 0=observers who rode in 2-5 beats; 1=observers who rode in 6-8 beats.	.12	.33	2478

Table 7.4 – Variable description and descriptive statistics: control variables

	Description	Mean	Std. Dev.	N
Suspect				
Sex	Dummy variable – 0=female; 1=male.	.75	.44	2488
Age	Ordinal variable – 1 = 0-5 years; 2 = 6-12 years; 3 = 13-17 years; 4 = 18-20 years; 5 = 21-29 years; 6 = 30-44 years; 7 = 45-59 years; 8 = 60+ years	5.12	1.44	2480
Race	Dummy variable – 0=other; 1=black	.58	.49	2488
Wealth				
Chronic poverty	Dummy variable – 0=other; 1=chronic poverty	.05	.22	2486
Low class	Dummy variable – 0=other; 1=low class	.61	.49	2486
Demeanor	Dummy variable - 0=no; 1=yes Suspect acts disrespectfully or challenges the authority of the officer.	.16	.37	2488
Drug/alcohol	Ordinal variable – 1=no indication; 2=indication, but no visible effects; 3=slight behavioral indications; 4=strong behavioral indications; 5=unconscious Suspect displays indications of alcohol or drug use (e.g., smell of alcohol, slurred speech, impaired motor skills, or unconsciousness)	1.54	1.01	2476
Mental state	Dummy variable – 0=no; 1=yes Suspect is unable to perceive situations as a reasonable person would or to control his/her emotions and actions.	.04	.20	2476
Weapon	Dummy variable – 0=no; 1=yes Citizen had a weapon on his/her person or within "jump and reach"	.04	.18	2478

Table 7.4 – Variable description and descriptive statistics: control variables – cont'ed

	Description	Mean	Std. Dev.	N
Situational				
Seriousness	Ordinal variable – 0=no crime; 1=public disorder/victimless crime; 2=misdemeanor or minor property; 3=major property; 4=major violent crime	1.39	1.19	2488
Bystanders	Interval variable – Number of bystanders at the scene	4.63	6.06	2486
Number of officers	Interval variable – Number of officers present at the scene	2.43	2.20	2487
Location	Dummy variable – 0=public; 1=private	.31	.46	2487
Victim requests arrest	Dummy variable – 0=no; 1=yes. Victim requests that the suspect be arrested.	.03	.18	2488

Table 7.5: Hypothesized effects: qualitative coding and the decision to arrest and use force

	Arrest	Use of force
Qual coding		
SC	(-)	(-)
SCFORCE	(-)	(-)
SAFE	(-)	(-)
AT EASE	(+)	(+)
DARK SIDE	(+)	(+)
CHG DYNAMIC	??[1]	??
OBSHELP	(+)	(+)
HELPPW	(+)	(+)
HELPARR	(+)	(+)
MPA	(+)	(+)
MPA (officer stated chg)	(+)	(+)
LPA	(-)	(-)
LPA (officer stated chg)	(-)	(-)

[1] Direction of hypothesized effect is unclear. It could be either positive or negative.

Table 7.6: Hypothesized effects: observer sex, status congruency, time in the field, and the decision to arrest and use force

	Arrest	Use of force
Observer sex		
OBSSEX	??[1]	??
O1OBSSEX[2]	??	??
Status congruency		
SCONGRU[3]	(+)	(+)
SCONGRU2[4]	(+)	(+)
Continuous time in the field		
OBS_O1	??	??
ANY_OBS	??	??
RIDESEQ	??	??
NUMDAYS	??	??
NUMBEATS	??	??
Categorical time in the field		
COBS_O1	??	??
CANY_OBS	??	??
EARLYSEQ	??	??
MIDSEQ	??	??
EARLYDAYS	??	??
MIDDAYS	??	??
HIBEAT	??	??

[1] Direction of hypothesized effect is unclear. It could be either positive or negative.
[2]Different combinations of officer and observer sex (e.g., male officer - male observer, male officer - female observer, female officer - male observer, female officer-female observer).
[3]Status congruency between patrol officer and observer measured by sex, age, education, and observer's job aspirations (i.e., to be a law enforcement officer).
[4]Status congruency between patrol officer and observer measured by sex, age, and education.

Table 7.7: Overview of bivariate mean comparison – Qualitative coding & variation in patrol officer decision making during encounters with citizens

	Arrest	Use of force
Qual coding		
SC		
SCFORCE		
SAFE	(-)[1]	
AT EASE	(-)	
DARK SIDE		
CHG DYNAMIC		
OBSHELP		(+)[2]
HELPPW		(+)
HELPARR		(+)
MPA		
MPA (officer stated chg)		
LPA		
LPA (officer stated chg)		

[1] Bivariate relationship is negative and significant at .05 level.
[2] Bivariate relationship is positive and significant at .05 level.

Table 7.8: Overview of bivariate mean comparison – Observer sex, status congruency, time in the field, & variation in patrol officer decision making during encounters with citizens

	Arrest	Use of force
Observer sex		
OBSSEX		
O1OBSSEX[1]	**[2]	
Status congruency		
SCONGRU[3]	(+)[4]	
SCONGRU2[5]	(+)	
Continuous time in the field		
OBS_O1	(-)[6]	
ANY_OBS		
RIDESEQ		(+)
NUMDAYS		
NUMBEATS	(-)	(+)
Categorical time in the field		
COBS_O1		(+)
CANY_OBS		(+)
EARLYSEQ		
MIDSEQ		(+)
EARLYDAYS		
MIDDAYS		
HIBEAT	(-)	

[1] Different combinations of officer and observer sex (e.g., male officer - male observer, male officer - female observer, female officer - male observer, female officer-female observer).
[2] P-value of bivariate relationship is less than .05 for the 4 possible pairwise comparisons of O1OBSSEX.
[3] Status congruency between patrol officer and observer measured by sex, age, education, and observer's job aspirations (i.e., to be a law enforcement officer).
[4] Bivariate relationship is positive and significant at .05 level.
[5] Status congruency between patrol officer and observer measured by sex, age, and education.
[6] Bivariate relationship is negative and significant at .05 level.

Table 7.9: Odds ratios for logistic regression equations – the qualitative coding (SAFE and AT EASE) and the decision to arrest

Variables	Arrest	
	(1)	(2)
SAFE	.52**	----
AT EASE	----	.97
DEMEANOR	2.08***	2.10***
SERIOUSNESS	1.57***	1.57***
CSEX	1.30	1.32
CAGE	.98	.97
CRACE	1.42**	1.38**
CPOVERTY	1.62*	1.66*
LOWCLASS	1.31*	1.32*
CINFL	1.42***	1.43***
CMENTAL	.47*	.46*
CWEAPON	1.65	1.67
MBYSTAND	.97*	.97*
MCOPS	1.50***	1.48***
LOCATE	.76*	.77*
VREQARR	2.67***	2.58***
Constant	----***	----***
Model Chi-square	447.8***	438.3***
N	2286	2286

* $p \leq .05$ (two-tailed)
** $p \leq .01$ (two-tailed)
*** $p \leq .001$ (two-tailed)

Table 7.10: Odds ratios for logistic regression equations – observer sex, status congruency, and the decision to arrest

Variables	Arrest		
	(1)	(2)	(3)
O1 & OBSERVER SEX			
Male O1 & Male observer	.56**	----	----
Male O1 & Female observer	.56**	----	----
Female O1 & male observer	.38***	----	----
STATUS CONGRUENCY			
Age, sex, education, job aspire	----	.91	----
Age, sex, education	----	----	.95
DEMEANOR	2.14***	2.20***	2.15***
SERIOUSNESS	1.60***	1.54***	1.58***
CSEX	1.32	1.38*	1.31
CAGE	.98	.97	.98
CRACE	1.44**	1.35*	1.43**
CPOVERTY	1.65	1.85*	1.71*
LOWCLASS	1.29	1.32*	1.31*
CINFL	1.42***	1.43***	1.43***
CMENTAL	.44*	.59	.46*
CWEAPON	1.71	1.61	1.64
MBYSTAND	.97*	.97*	.99
MCOPS	1.48***	1.50***	1.55***
LOCATE	.78*	.80	.76*
VREQARR	2.56***	2.08*	2.46**
Constant	----***	----***	----***
Model Chi-square	451.7***	392.7***	472.0***
N	2286	1990	2286

* $p \leq .05$ (two-tailed)
** $p \leq .01$ (two-tailed)
*** $p \leq .001$ (two-tailed)

Table 7.11: Odds ratios for logistic regression equations – continuous TIF, categorical TIF and the decision to arrest

Variables	Arrest		
	(1)	(2)	(3)
CONTINUOUS TIF			
OBS_O1	.90	----	----
NUMBEATS	----	.80***	----
CATEGORICAL TIF			
HIBEAT	----	----	.55**
DEMEANOR	2.11***	2.20***	2.09***
SERIOUSNESS	1.57***	1.61***	1.60***
CSEX	1.32	1.27	1.32*
CAGE	.97	.98	.97
CRACE	1.37*	1.41**	1.35*
CPOVERTY	1.70*	1.61	1.59
LOWCLASS	1.33*	1.30*	1.33*
CINFL	1.42***	1.41***	1.42***
CMENTAL	.45*	.49*	.45*
CWEAPON	1.66	1.53	1.60
MBYSTAND	.97*	.97**	.97**
MCOPS	1.48***	1.47***	1.47***
LOCATE	.77*	.77*	.76*
VREQARR	2.53**	2.67***	2.55***
Constant	----***	----***	----***
Model Chi-square	440.2***	458.2***	446.9***
N	2286	2286	2277

* $p \leq .05$ (two-tailed)
** $p \leq .01$ (two-tailed)
*** $p \leq .001$ (two-tailed)

Table 7.12 - Odds ratios from multinomial logit for qualitative coding: OBSHELP and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
OBSHELP	.45***	.66	1.46
DEMEANOR	.33****	.14****	.42***
SERIOUS	.90	.90	1.00
CSEX	.68	.28***	.42*
CAGE	1.21**	.83*	.69***
CRACE	.58**	.67	1.16
CPOVERTY	1.55	.61	.39
LOWCLASS	.87	.80	.92
CINFL	.86	.78**	.91
CMENTAL	.84	.69	.82
CWEAPON	.35***	.72	2.06
MBYSTAND	1.01	1.04**	1.03
MCOPS	.74****	.67****	.90
LOCATE	1.14	.79	.69
VREQARR	.40**	1.79	4.44**
Intercept	----****	----****	----****
Model Chi-square	290.0****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.13 - Odds ratios from multinomial logit for qualitative coding: HELPPW and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
HELPPW	.45***	.76	1.69
DEMEANOR	.34****	.14****	.41***
SERIOUS	.91	.90	.99
CSEX	.67	.28***	.42*
CAGE	1.21**	.83*	.69***
CRACE	.60**	.68	1.14
CPOVERTY	1.63	.61	.38
LOWCLASS	.91	.81	.90
CINFL	.85	.78***	.92
CMENTAL	.84	.71	.84
CWEAPON	.35**	.72	2.07
MBYSTAND	1.01	1.04**	1.03
MCOPS	.74****	.67****	.90
LOCATE	1.12	.78	.70
VREQARR	.41**	1.80	4.45**
Intercept	----****	----****	----****
Model Chi-square	287.7****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.14 - Odds ratios from multinomial logit for qualitative coding: HELPARR and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
HELPARR	.40**	.78	1.95
DEMEANOR	.35****	.14****	.41***
SERIOUS	.89	.90	1.00
CSEX	.69	.28***	.41*
CAGE	1.21**	.84*	.69***
CRACE	.61**	.68	1.12
CPOVERTY	1.50	.60	.40
LOWCLASS	.89	.81	.91
CINFL	.85	.78**	.91
CMENTAL	.87	.72	.82
CWEAPON	.35***	.72	2.09
MBYSTAND	1.01	1.04**	1.03
MCOPS	.74****	.67****	.90
LOCATE	1.06	.77	.73
VREQARR	.41**	1.81	4.42**
Intercept	----****	----****	----****
Model Chi-square	285.9****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.15 - Odds ratios from multinomial logit for Continuous TIF (RIDESEQ) and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
RIDESEQ	.99	1.03	1.04
DEMEANOR	.35****	.14****	.40***
SERIOUS	.89	.89	1.01
CSEX	.70	.28***	.41*
CAGE	1.22**	.83*	.68***
CRACE	.60**	.67	1.12
CPOVERTY	1.51	.63	.42
LOWCLASS	.89	.81	.91
CINFL	.84	.78**	.92
CMENTAL	.88	.74	.84
CWEAPON	.35***	.71	2.03
MBYSTAND	1.01	1.05**	1.03
MCOPS	.73****	.66****	.90*
LOCATE	1.08	.78	.72
VREQARR	.41**	1.86	4.56**
Intercept	----****	----****	----***
Model Chi-square	283.2****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.16 - Odds ratios from multinomial logit for Continuous TIF (NUMBEATS) and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
NUMBEATS	.79***	1.24*	1.57***
DEMEANOR	.35****	.13****	.38***
SERIOUS	.91	.87	.97
CSEX	.66	.28***	.42*
CAGE	1.22**	.83*	.68***
CRACE	.62*	.67	1.08
CPOVERTY	1.48	.63	.42
LOWCLASS	.87	.84	.97
CINFL	.83*	.79**	.95
CMENTAL	.99	.65	.66
CWEAPON	.32***	.75	2.31
MBYSTAND	1.02	1.04**	1.03
MCOPS	.72****	.67****	.93
LOCATE	1.10	.80	.72
VREQARR	.40**	1.79	4.54**
Intercept	----****	----****	----
Model Chi-square	293.0****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.17 - Odds ratios from multinomial logit for Categorical TIF (COBS_O1) and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
COBS_O1	1.08	.32***	.29***
DEMEANOR	.35****	.13****	.37***
SERIOUS	.89	.91	1.03
CSEX	.70	.27***	.39**
CAGE	1.22**	.83*	.68***
CRACE	.59**	.76	1.27
CPOVERTY	1.54	.54	.35
LOWCLASS	.89	.80	.90
CINFL	.84	.80**	.95
CMENTAL	.89	.78	.87
CWEAPON	.35***	.68	1.95
MBYSTAND	1.01	1.04**	1.03
MCOPS	.73****	.66****	.90
LOCATE	1.10	.77	.70
VREQARR	.40**	1.99	4.94**
Intercept	----****	----****	----****
Model Chi-square	292.2****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.18 - Odds ratios from multinomial logit for Categorical TIF (CANY_OBS) and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
CANY_OBS	.78	.68*	.88
DEMEANOR	.34****	.14****	.40***
SERIOUS	.89	.89	1.01
CSEX	.70	.28***	.40**
CAGE	1.22**	.84*	.69***
CRACE	.61**	.69	1.13
CPOVERTY	1.53	.57	.38
LOWCLASS	.89	.79	.89
CINFL	.84	.78**	.93
CMENTAL	.90	.73	.81
CWEAPON	.36*	.72	1.98
MBYSTAND	1.01	1.04**	1.03
MCOPS	.73****	.66****	.91
LOCATE	1.08	.76	.70
VREQARR	.41**	1.76	4.30**
Intercept	----****	----****	----****
Model Chi-square	285.0****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force
[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.
[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.19 - Odds ratios from multinomial logit for Categorical TIF (EARLYSEQ MIDSEQ) and USE OF FORCE

	A|B[1]	A|C[2]	B|C[3]
EARLYSEQ	1.07	.77	.72
MIDSEQ	1.04	.49***	.47**
DEMEANOR	.35****	.13****	.38***
SERIOUS	.89	.90	1.02
CSEX	.70	.28***	.41*
CAGE	1.22**	.81**	.66***
CRACE	.60**	.67	1.12
CPOVERTY	1.52	.63	.41
LOWCLASS	.90	.82	.91
CINFL	.84	.78**	.93
CMENTAL	.87	.73	.83
CWEAPON	.35***	.72	2.03
MBYSTAND	1.01	1.05**	1.04*
MCOPS	.73****	.65****	.89*
LOCATE	1.09	.78	.72
VREQARR	.41**	1.74	4.29**
Intercept	----****	----****	----****
Model Chi-square	289.0****		
N	2474		

*p<.1
** p<.05
***p<.01
****p<.001

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 7.20 – Summary of multivariate analysis for the decision to arrest: comparing hypothesized effects and multivariate findings

	The decision to arrest	
	Hypothesized effect	Multivariate findings
Qualitative coding		
SAFE	(-)	(-)
AT EASE	(+)	n.s.
Observer sex		
MO1MOBS	??	(-)
MO1FOBS	??	(-)
FO1MOBS	??	(-)
Status congruency		
SCONGRU	(+)	n.s.
SCONGRU2	(+)	n.s.
Continuous TIF		
NUMBEATS	(-)	(-)
Categorical TIF		
HIBEAT	(-)	(-)

Table 7.21 – Summary of multivariate analysis for the use of force: comparing hypothesized effects and multivariate findings

	Use of force			
	Hypothesized effect	Multivariate findings		
		A|B[1]	A|C[2]	B|C[3]
Qualitative coding				
OBSHELP	(+)	(+)	n.s.	n.s.
HELPPW	(+)	(+)	n.s.	n.s.
HELPARR	(+)	(+)	n.s.	n.s.
Continuous TIF				
RIDESEQ	??	n.s	n.s	n.s
NUMBEATS	(-)	(+)	(-)	(-)
Categorical TIF				
COBS_O1	??	n.s.	(+)	(+)
CANY_OBS	??	n.s.	(+)	n.s.
EARLYSEQ	??	n.s.	n.s.	n.s.
MIDSEQ	??	n.s.	(+)	(+)

[1] Restraint (firm grip or nonpain restraint) versus no force

[2] Physical force (pain compliance, strike suspects with body or weapon, or draw/shoot firearm) versus no force.

[3] Physical force (pain compliance, strike suspect with body or weapon, or draw/shoot firearm) versus restraint (firm grip or nonpain restraint)

Table 8.1 – Variable description and descriptive statistics: the qualitative coding and interride variation in patrol officer behavior

	Description	Mean	Std. Dev.	N
Dependent var's				
NGOOF	Interval variable – number of times an officer takes breaks or runs errands over the course of a shift	4.55	3.38	625
NOINIT	Interval variable – number of officer initiated events over the course of a shift (excluding general motorized patrol)	24.7	10.2	625
NSUSPI	Interval variable – number of events an officer spends investigating suspicious circumstances over the course of a shift	1.77	2.45	625
TGOOF	Interval variable – amount of time an officer spends taking breaks or running errands over the course of a shift (in minutes)	70.0	54.3	625
TOINIT	Interval variable –amount of time an officer spends with officer initiated events over the course of a shift (excluding general motorized patrol) (in minutes)	243.8	95.3	625
TSUSPI	Interval variable –amount of time an officer spends investigating suspicious circumstances over the course of a shift (in minutes)	11.4	20.7	625
Independent var's				
Qualitative coding				
Self-conscious (all cases)	Dichotomous variable – 0=patrol officer gives no indication of self-consciousness; 1=patrol officer gives indication of self-consciousness over the course of the shift (all cases).	.21	.41	625
Self-conscious about break/errands	Dichotomous variable – 0=no indication; 1=officer acts self-conscious about taking breaks or running errands due to presence of observer over the course of the shift	.08	.27	625
Safety (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer expresses a concern about safety over the course of the shift	.08	.28	625

Table 8.1 – Variable description and descriptive statistics: the qualitative coding and interride variation in patrol officer behavior – cont'ed

At ease (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates that s/he is at ease or comfortable with the presence of the observer over the course of the shift (all cases)	.44	.50	625
Observer helps officer (all cases)	Dichotomous variable – 0=no indication; 1=observer helps patrol officer over the course of the shift (all cases)	.12	.32	625
Observer helps officer with police work	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with police work over the course of the shift.	.09	.29	625
Observer helps officer with arrest	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with an arrest over the course of the shift	.03	.16	625
More proactive (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates s/he is more proactive over the course of the shift (all cases)	.17	.37	625
More proactive (officer stated chg)	Dichotomous variable – 0=no indication; 1=patrol officer explicitly states that s/he is more proactive over the course of the shift	.09	.29	625
Less proactive (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer indicates s/he is less proactive over the course of the shift (all cases)	.03	.18	625
Less proactive (officer stated)	Dichotomous variable – 0=no indication; 1=patrol officer explicitly states s/he is less proactive over the course of the shift	.01	.11	625
TIF (all cases)	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior changed over time	.17	.37	625
TIF – interride	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior changed from one ride to another (interride)	.03	.18	625

Table 8.2 – Variable description and descriptive statistics (ride level): observer sex and status congruency

	Description	Mean	Std. Dev.	N
Observer sex				
Observer sex	Dichotomous variable – 0=female; 1=male.	.54	.50	625
O1 & observer sex				
Male O1 & male observer	Dichotomous variable – 0=other; 1=male officer and male observer.	.43	.49	625
Male O1 & female observer	Dichotomous variable – 0=other; 1= male officer and female observer	.37	.48	625
Female O1 & male observer	Dichotomous variable – 0=other; 1= female officer and male observer	.10	.29	625
Status congruency				
Age, sex, edu, observer's job aspirations	Ordinal variable – 0=officer and observer are different age, sex, education, and observer does not aspire to law enforcement; 4=observer and officer are same age (within 5 yrs), sex, education (B.S. or better) and observer aspires to be law enforcement officer.	1.29	.93	557
Age, sex, education	Ordinal variable – 0=officer and observer are different age and sex and have different levels of education; to 3=officer and observer are same age (within 5 years), sex, and education level (B.S. or better)	.85	.78	625

Table 8.3 – Variable description and descriptive statistics (ride level): continuous and categorical TIF

	Description	Mean	Std. Dev.	N
Time in the field (TIF)				
Continuous TIF				
OBS_O1	Interval variable – Number of times an officer rode with the *same* observer	1.36	.91	624
ANY_OBS	Interval variable – Number of times an officer rode with *any* observer	2.21	1.55	624
RIDESEQ	Interval variable – Sequence of rides for observers from first to last ride.	10.4	5.86	625
NUMDAYS	Interval variable – Number of days of fieldwork from first to last day.	33.7	19.8	625
NUMBEATS	Interval variable – Number of beats an observer rode in.	4.24	1.17	622
Categorical TIF				
COBS_O1	Dichotomous variable – 0=other; 1=first time an officer rode with *same* observer.	.79	.41	624
CANY_OBS	Dichotomous variable – 0=other; 1=first time an officer rode with *any* observer	.44	.50	624
EARLYSEQ	Dichotomous variable – 0=other; 1=observer's first 5 rides.	.26	.44	625
MIDSEQ	Dichotomous variable – 0=other; 1=observer's middle 8 rides	.40	.49	625
EARLYDAY	Dichotomous variable – -0=other; 1=first ¼ of fieldwork (using 25% of rides as cutoff point)	.25	.43	625
MIDDAYS	Dichotomous variable – 0=other; 1=middle 50% of fieldwork. (using 50% of rides as cutoff point)	.48	.50	625
HIBEAT	Dichotomous variable – 0=observers who rode in 2-5 beats; 1=observers who rode in 6-8 beats.	.11	.31	622

Table 8.4 – Variable description and descriptive statistics (ride level): control variables

	Description	Mean	Std. Dev.	N
Control variables				
SHIFTIME	Interval variable – Length of shift (in hours)	8.46	.84	625
STAFFING	Interval variable – Staffing level per shift	17.5	5.43	623
O1YREXP	Interval variable – Number of years of experience as law enforcement officer	8.49	6.79	595
TDISCR	Interval variable – Total discretionary time per shift (in minutes)	371.7	82.3	625
DAYSHIFT	Dichotomous variable – 0=other; 1=day shift	.34	.47	625
AFTSHIFT	Dichotomous variable – 0=other; 1=afternoon shift (or 2nd shift)	.29	.45	625
LOWDIST	Dichotomous variable – 0=other; 1= low level of socioeconomic distress	.33	.47	625
MEDDIST	Dichotomous variable – 0=other; 1=medium level of socioeconomic distress	.25	.43	593

Table 8.5: Hypothesized effects: qualitative coding and interride variation in patrol officer behavior

	GOOF	OINIT	SUSPI
Qual coding			
SC	(-)	(-)	(-)
SCBRK	(-)	(-)	(-)
SAFE	??	(-)	(-)
AT EASE	(+)	(+)	(+)
OBSHELP	(+)	(+)	(+)
HELPPW	(+)	(+)	(+)
HELPARR	(+)	(+)	(+)
MPA	(-)	(+)	(+)
MPA (officer stated chg)	(-)	(+)	(+)
LPA	(+)	(-)	(-)
LPA (officer stated chg)	(+)	(-)	(-)
TIF	??	??	??
TIF (interride)	??	??	??

Table 8.6: Hypothesized effects: observer sex, status congruency, time in the field, and interride variation in patrol officer behavior

	GOOF	OINIT	SUSPI
Observer sex			
OBSSEX	??	??	??
O1OBSSEX[1]	??	??	??
Status congruency			
SCONGRU[2]	(+)	(+)	(+)
SCONGRU2[3]	(+)	(+)	(+)
Continuous time in the field			
OBS_O1	??	??	??
ANY_OBS	??	??	??
RIDESEQ	??	??	??
NUMDAYS	??	??	??
NUMBEATS	??	??	??
Categorical time in the field			
COBS_O1	??	??	??
CANY_OBS	??	??	??
EARLYSEQ	??	??	??
MIDSEQ	??	??	??
EARLYDAYS	??	??	??
MIDDAYS	??	??	??
HIBEAT	??	??	??

[1]Different combinations of officer and observer sex (e.g., male officer - male observer, male officer - female observer, female officer - male observer, female officer-female observer).

[2]Status congruency between patrol officer and observer measured by sex, age, education, and observer's job aspirations (i.e., to be a law enforcement officer).

[3]Status congruency between patrol officer and observer measured by sex, age, and education.

Table 8.7: Overview of ride level bivariate analysis – Qualitative coding and interride variation in patrol officer behavior

	NGOOF	**NOINIT**	**NSUSPI**	**TGOOF**	**TOINIT**	**TSUSPI**
SC	(+)[1]			(+)		
SCBRK	(+)			(+)		
SAFE	(-)		(+)			(+)
AT EASE		(-)			(-)	
OBSHELP				(-)		
HELPPW						
HELPARR						
MPA						
MPA (officer stated chg)		(+)				
LPA						
LPA (officer stated chg)						
TIF			(-)			(-)
TIF(interride)		(+)	(-)		(+)	(-)

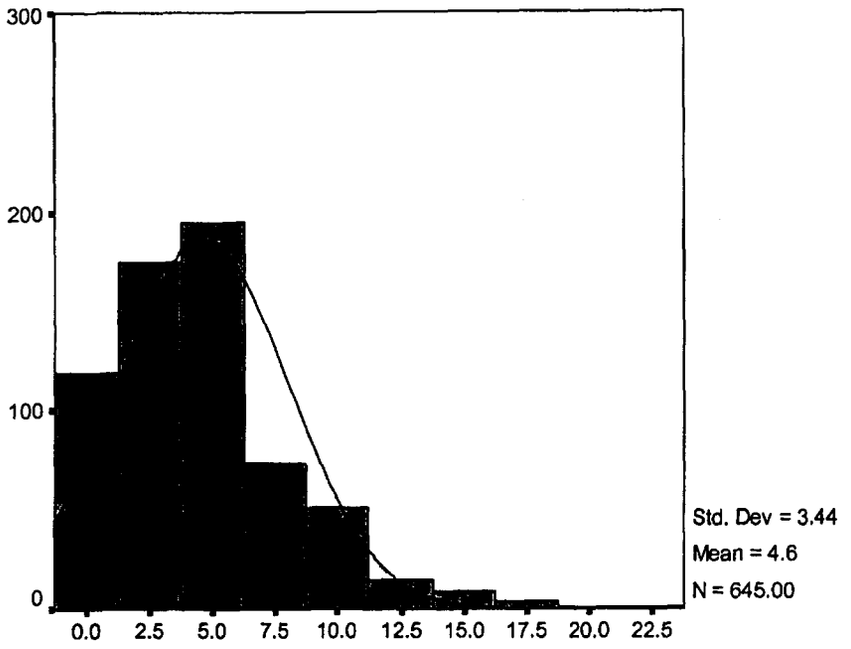
[1] Bivariate relationship is positive and significant at .05 level.

Table 8.8: Overview of ride level bivariate analysis – Observer sex, status congruency, time in the field and interride variation in patrol officer behavior

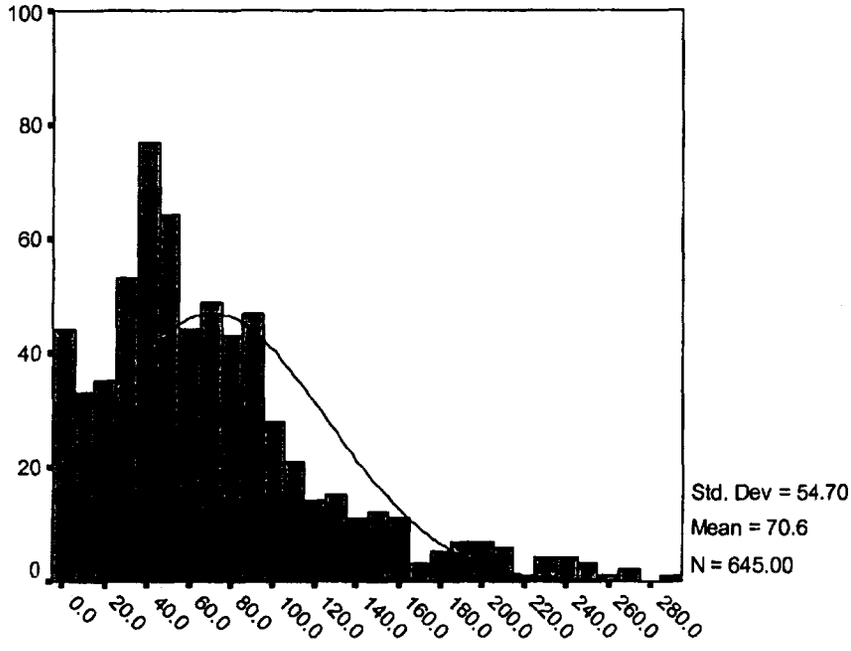
	NGOOF	**NOINIT**	**NSUSPI**	**TGOOF**	**TOINIT**	**TSUSPI**
Observer sex						
OBSSEX						
O1OBSSEX[1]	**[2]	**	**	**	**	**
Status congruency						
SCONGRU[3]						
SCONGRU2[4]		(+)[5]				
Continuous time in the field						
OBS_O1	(+)	(+)	(-)	(+)	(+)	(-)
ANY_OBS	(+)	(+)	(-)		(+)	(-)
RIDESEQ			(+)			(-)
NUMDAYS						(-)
NUMBEATS		(+)			(+)	
Categorical time in the field						
COBS_O1		(-)			(-)	
CANY_OBS		(-)[6]			(-)	
EARLYSEQ						
MIDSEQ			(+)			(+)
EARLYDAYS						
MIDDAYS		(+)				(+)
HIBEAT			(-)			

[1] Different combinations of officer and observer sex (e.g., male officer - male observer, male officer - female observer, female officer - male observer, female officer-female observer).
[2] P-value of bivariate relationship is less than .05 for the 4 possible pairwise comparisons of O1OBSSEX.
[3] Status congruency between patrol officer and observer measured by sex, age, education, and observer's job aspirations (i.e., to be a law enforcement officer).
[4] Status congruency between patrol officer and observer measured by sex, age, and education.
[5] Bivariate relationship is positive and significant at .05 level.
[6] Bivariate relationship is negative and significant at .05 level.

Figure 8.9: Histogram of frequency distribution for "goofing off" by patrol officers (NGOOF and TGOOF)



NGOOF - number of breaks and errands per shift



TGOOF - time spent w/ breaks & errands (in mins)

Table 8.10: Multivariate (OLS) regression for SC, SCBRK and GOOF

	NGOOF		TGOOF	
	(1a)	(1b)	(2a)	(2b)
SC	.578[1]* (.325)[2]	----	-7.24 (5.09)	----
SCBRK	----	.766 (.510)	----	19.58** (7.95)
LENGTH OF SHIFT	-.050 (.191)	.004 (.191)	.479 (2.99)	.637 (2.98)
STAFFING	-.027 (.025)	-.027 (.025)	.182 (.399)	.142 (.398)
O1YREXP	.004 (.022)	.005 (.022)	.415 (.351)	.405 (.350)
TDISCR	.010**** (.002)	.010**** (.002)	.196**** (.032)	.197**** (.031)
DAYSHIFT	1.38**** (.357)	1.34**** (.359)	21.99**** (5.59)	20.62**** (5.61)
AFTSHIFT	.596* (.326)	.588* (.326)	-.529 (5.11)	-.471 (5.09)
Intercept	.849 (1.39)	.836 (1.40)	-22.82 (21.84)	-22.92 (21.77)
Adjusted R-square	.108	.106	.157	.163
N	593	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.11: Multivariate (OLS) regression for SAFE, OBSHELP and GOOF

	NGOOF	TGOOF	
	(1)	(2a)	(2b)
SAFE	-.91[1]* (.46)[2]	-14.39** (7.26)	----
OBSHELP	----	----	-582 (6.36)
LENGTH OF SHIFT	.004 (.19)	.67 (2.99)	-.548 (3.00)
STAFFING	-.002 (.03)	.21 (.40)	.204 (.399)
O1YREXP	.0004 (.02)	.41 (.35)	.428 (.351)
TDISCR	.010**** (.002)	.20**** (.03)	.197**** (.032)
DAYSHIFT	1.41*** (.36)	22.43**** (5.58)	22.14**** (5.60)
AFTSHIFT	.60* (.33)	-.41 (5.10)	-1.04 (5.11)
Intercept	.87 (1.39)	-22.39 (21.81)	-21.84 (23.91)
Adjusted R-square	.109	.160	.155
N	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.12: Multivariate (OLS) regression for OBSSEX and GOOF

	NGOOF	TGOOF
	(1)	(2)
MO1MOBS	.432[1] (.552)[2]	8.60 (8.68)
MO1FOBS	.664 (.552)	9.96 (8.68)
FO1MOBS	1.53** (.652)	14.20 (10.26)
LENGTH OF SHIFT	-.030 (.191)	.703 (3.00)
STAFFING	-.029 (.026)	.204 (.401)
O1YREXP	.008 (.023)	.436 (.354)
TDISCR	.010**** (.002)	.195**** (.032)
DAYSHIFT	1.32**** (.368)	22.64**** (5.79)
AFTSHIFT	.536 (.328)	-.693 (5.15)
Intercept	.361 (1.51)	-32.50 (23.76)
Adjusted R-square	.111	.154
N	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.13: Multivariate (OLS) regression for continuous TIF and GOOF

	NGOOF		TGOOF
	(1a)	(1b)	(2)
OBS_O1	.058[1] (.159)[2]	----	-3.34 (2.48)
ANY_OBS	----	.157* (.090)	----
LENGTH OF SHIFT	-.056 (.192)	-.058 (.191)	.755 (3.00)
STAFFING	-.021 (.026)	-.012 (.026)	.122 (.405)
O1YREXP	.007 (.023)	.014 (.023)	.399 (.352)
TDISCR	.010**** (.002)	-.010**** (.002)	.208**** (.032)
DAYSHIFT	1.40*** (.358)	1.35**** (.358)	22.80**** (5.59)
AFTSHIFT	.557* (.330)	.493 (.329)	.209 (5.16)
Intercept	.825 (1.40)	.510 (1.41)	-22.72 (21.85)
Adjusted R-square	.103	.107	.157
N	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.14 – Multivariate (OLS) regression for qualitative coding – MORE PROACTIVE, AT EASE, and OINIT

	NOINIT		TOINIT
	(1a)	(1b)	(2)
MORE PROACTIVE (officer stated change)	1.92[1] (1.33)[1]	----	----
AT EASE	----	-.870 (.772)	-6.89 (5.31)
LENGTH OF SHIFT	-.770 (.553)	-.760 (.554)	14.72**** (3.81)
STAFFING	-.254*** (.074)	-.257*** (.074)	-1.57*** (.508)
O1YREXP	-.260**** (.065)	-.255**** (.065)	-1.05** (.446)
TDISCR	.049**** (.006)	.049**** (.006)	.734**** (.040)
DAYSHIFT	2.26** (1.03)	2.34** (1.03)	15.87** (7.11)
AFTSHIFT	3.05*** (.944)	3.06*** (.946)	6.46* (6.51)
Intercept	17.90**** (4.04)	18.46**** (4.07)	-119.90**** (27.99)
Adjusted R-square	.180	.179	.556
N	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.15: Multivariate (OLS) regression for qualitative coding – TIF and OINIT

	NOINIT	TOINIT
	(1)	(2)
TIFINTER	3.79[1]* (2.14)[2]	37.54** (14.68)
LENGTH OF SHIFT	-.771 (.553)	14.66**** (3.79)
STAFFING	-.242*** (.073)	-1.45*** (.504)
O1YREXP	-.259**** (.065)	-.975** (.446)
TDISCR	.048**** (.006)	.726**** (.040)
DAYSHIFT	2.13** (1.04)	13.82* (7.12)
AFTSHIFT	2.89*** (.944)	4.88* (6.48)
Intercept	18.08**** (4.04)	-122.62**** (27.69)
Adjusted R-square	.182	.560
N	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.16: Multivariate (OLS) regression for OBSSEX, SCONGRU, and OINIT

	NOINIT		TOINIT
	(1a)	(1b)	(2)
MO1MOBS	-1.16[1] (1.60)[2]	----	-30.03*** (10.96)
MO1FOBS	-.428 (1.60)	----	-25.50** (10.95)
FO1MOBS	2.24 (1.89)	----	-7.34 (12.94)
SCONGRU2 (age, sex, edu)	----	1.34*** (.518)	----
LENGTH OF SHIFT	-.763 (.553)	-.729 (.551)	14.23**** (3.79)
STAFFING	-.271**** (.074)	-.263**** (.073)	-1.69*** (.506)
O1YREXP	-.256**** (.065)	-.221*** (.067)	-.939** (.447)
TDISCR	.048**** (.006)	.049**** (.006)	.735**** (.040)
DAYSHIFT	1.78* (1.07)	2.22** (1.03)	9.68** (7.30)
AFTSHIFT	2.76*** (.949)	3.09*** (.940)	3.29 (6.50)
Intercept	19.19**** (4.38)	16.34**** (4.07)	-91.24*** (29.98)
Adjusted R-square	.183	.187	.562
N	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Table 8.17: Multivariate (OLS) regression for continuous TIF and OINIT

	NOINIT			TOINIT		
	(1a)	(1b)	(1c)	(2a)	(2b)	(2c)
ANY_OBS	.980[1]**** (.259)[2]	----	----	7.79**** (1.77)	----	----
OBS_O1	----	1.86**** (.453)	----	----	11.28**** (3.13)	----
NUMBEATS	----	----	1.94**** (.327)	----	----	12.65**** (2.26)
LENGTH OF SHIFT	-.820 (.548)	-.939* (.548)	-.307 (.545)	14.25**** (3.75)	13.61**** (3.78)	17.42**** (3.77)
STAFFING	-.181** (.075)	-.191*** (.074)	-.160** (.073)	-.971*** (.513)	-1.16** (.511)	-1.02** (.505)
O1YREXP	-.221*** (.065)	-.245**** (.064)	-.222*** (.064)	-.689 (.448)	-.921** (.444)	-.821* (.440)
TDISCR	.047**** (.006)	.044**** (.006)	.047**** (.006)	.714**** (.040)	.706**** (.041)	.723**** (.039)
DAYSHIFT	1.97* (1.03)	2.08** (1.02)	2.21** (1.01)	12.99* (7.03)	14.32** (7.05)	16.03** (6.97)
AFTSHIFT	2.48*** (.943)	2.43*** (.941)	2.57*** (.918)	1.81 (6.46)	2.49 (6.50)	3.27 (6.35)
Intercept	15.92**** (4.03)	17.74**** (3.99)	4.73 (4.52)	-140.1**** (29.98)	-125.3**** (27.53)	-206.7**** (31.25)
Adjusted R-square	.197	.200	.222	.569	.565	.578
N	593	593	593	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

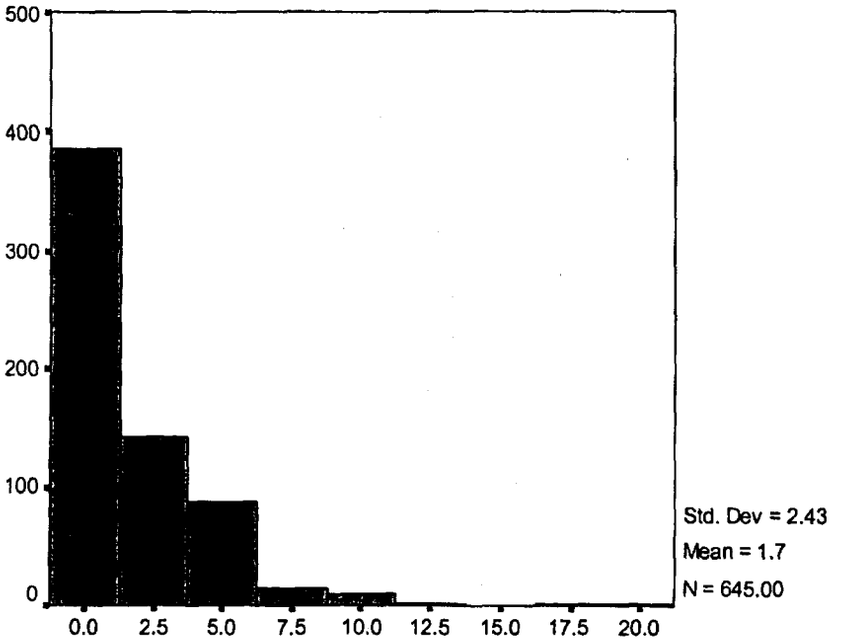
Table 8.18: Multivariate (OLS) regression for categorical TIF (CANY_OBS, COBS_O1) and OINIT

	NOINIT		TOINIT	
	(1a)	(1b)	(2a)	(2b)
CANY_OBS	-2.08[1]*** (.776)[2]	----	-18.80**** (5.32)	----
COBS_O1	----	-2.11** (.948)	----	-12.17* (6.54)
LENGTH OF SHIFT	-.857 (.552)	-.847 (.553)	13.87**** (3.78)	14.19**** (3.81)
STAFFING	-.222*** (.074)	-.234*** (.074)	-1.26** (.506)	-1.43*** (.507)
O1YREXP	-.244**** (.065)	-.259**** (.065)	-.851* (.446)	-1.01** (.446)
TDISCR	.049**** (.006)	.048**** (.006)	.733**** (.040)	.728**** (.040)
DAYSHIFT	2.27** (1.03)	2.23** (1.03)	15.24** (7.04)	15.23** (7.10)
AFTSHIFT	2.90*** (.939)	2.79*** (.945)	5.04 (6.44)	4.74 (6.51)
Intercept	19.08**** (4.04)	20.55**** (4.20)	-113.69**** (27.70)	-108.96**** (28.93)
Adjusted R-square	.187	.184	.564	.558
N	593	593	593	593

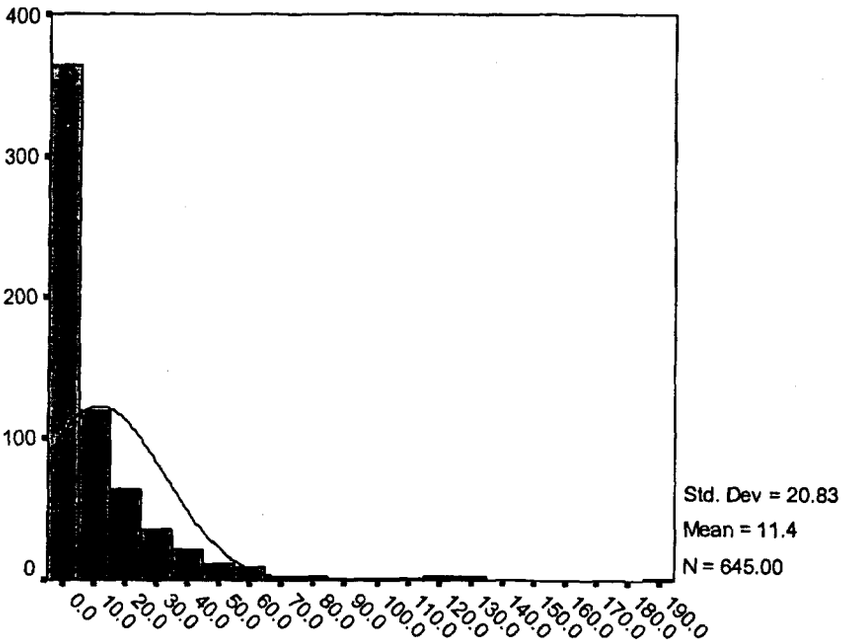
*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized OLS regression coefficient.
[2]Standard error.

Figure 8.19: Histogram of frequency distribution for number and time spent investigating suspicious circumstances (NSUSPI and TSUSPI)



NSUSPI - # of times investigating suspicious circumstances



TSUSPI - time spent investigating suspicious circum

Table 8.20: Multivariate (POISSON) regression for qualitative coding (SAFETY, TIF, TIFINTER) & SUSPI

	NSUSPI			TSUSPI		
	(1a)	(1b)	(1c)	(2a)	(2b)	(2c)
SAFETY	.34[1]* (.20)[2]	----	----	.44 (.44)	----	----
TIF	----	-.21 (.17)	----	----	-.12 (.33)	----
TIFINTER	----	----	-1.09*** (.43)	----	----	-.83 (.52)
LENGTH OF SHIFT	.04 (.10)	.03 (.10)	.03 (.11)	.12 (.19)	.10 (.17)	.09 (.18)
STAFFING	-.007 (.01)	-.01 (.01)	-.01 (.01)	-.01 (.02)	-.02 (.02)	-.02 (.02)
O1YREXP	-.03*** (.01)	-.03** (.01)	-.01*** (.01)	-.04** (.018)	-.04** (.02)	-.05** (.02)
TDISCR	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.002 (.002)	-.002 (.002)	-.001 (.001)
DAYSHIFT	-.64**** (.16)	-.63*** (.16)	-.60*** (.16)	-.57** (.27)	-.59** (.27)	-.55** (.27)
AFTSHIFT	-.63*** (.16)	-.63*** (.16)	-.60*** (.16)	-.82*** (.32)	-.79** (.31)	-.76** (.31)
LOWDIST	-.16 (.15)	-.15 (.15)	-.12 (.15)	.03 (.25)	.08 (.25)	.12 (.25)
MEDDIST	-.06 (.15)	-.06 (.15)	-.06 (.15)	-.01 (.25)	.02 (.26)	.02 (.26)
Constant	1.18 (.72)	1.31* (.75)	1.26* (.77)	2.92** (1.48)	3.17** (1.44)	3.14** (1.44)
Alpha[3]	1.27**** (.13)	1.28**** (.13)	1.26**** (.13)	4.16**** (.28)	4.18**** (.28)	4.16**** (.28)
Model Chi-square	421.7****	422.1****	414.9****	11281.4****	11385.6****	11307.7****
N	593	593	593	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized POISSON (negative binomial) regression coefficient.
[2]Standard error.
[3]Overdispersion parameter for negative binomial model.

Table 8.21: Multivariate (POISSON) regression for OBSSEX and SUSPI

	NSUSPI	TSUSPI
	(1)	(2)
MO1MOBS	.44[1] (.31)[2]	.10 (.40)
MO1FOBS	.57* (.31)	.43 (.38)
FO1MOBS	.73** (.32)	.84** (.43)
LENGTH OF SHIFT	.07 (.11)	.14 (.17)
STAFFING	-.01 (.01)	-.02 (.02)
O1YREXP	-.03*** (.01)	-.04** (.02)
TDISCR	-.001 (.001)	-.002 (.002)
DAYSHIFT	-.63*** (.17)	-.67** (.30)
AFTSHIFT	-.63*** (.16)	-.82*** (.31)
LOWDIST	-.12 (.16)	.12 (.25)
MEDDIST	-.04 (.15)	.04 (.28)
Constant	.68 (.81)	2.80** (1.42)
Alpha[3]	1.26**** (.13)	4.10**** (.28)
Model Chi-square	414.7****	10973.7****
N	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized POISSON (negative binomial) regression coefficient.
[2]Standard error.
[3]Overdispersion parameter for negative binomial model.

Table 8.22: Multivariate (POISSON) regression for continuous TIF & SUSPI (ANY_OBS, OBS_O1)

	NSUSPI		TSUSPI	
	(1a)	(1b)	(2a)	(2b)
ANY_OBS	.001[1] (.002)[2]	----	.001 (.002)	----
OBS_O1	----	.001 (.002)	----	.001 (.002)
LENGTH OF SHIFT	.03 (.10)	.03 (.10)	.10 (.18)	.10 (.18)
STAFFING	-.01 (.01)	-.01 (.01)	-.02 (.02)	-.02 (.02)
O1YREXP	-.03*** (.01)	-.03*** (.01)	-.05** (.02)	-.05** (.02)
TDISCR	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)
DAYSHIFT	-.62*** (.16)	-.62*** (.16)	-.58** (.27)	-.58** (.27)
AFTSHIFT	-.62*** (.16)	-.62*** (.16)	-.79** (.31)	-.79** (.31)
LOWDIST	-.14 (.15)	-.14 (.15)	.09 (.25)	.09 (.25)
MEDDIST	-.06 (.15)	-.06 (.15)	.32 (.26)	.03 (.26)
Constant	1.30* (.73)	1.30* (.73)	3.16** (1.43)	3.17** (1.43)
Alpha[3]	1.28**** (.13)	1.28**** (.13)	4.18**** (.28)	4.18**** (.28)
Model Chi-square	424.0****	423.8****	11385.1****	11384.4****
N	593	593	593	593

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized POISSON (negative binomial) regression coefficient.
[2]Standard error.
[3]Overdispersion parameter for negative binomial model.

Table 8.23: Multivariate (POISSON) regression for continuous TIF & SUSPI (RIDESEQ, NUMDAYS)

	NSUSPI	TSUSPI	
	(1)	(2a)	(2b)
RIDESEQ	.002[1] (.002)[2]	-.05** (.02)	----
NUMDAYS	----	----	-.02** (.01)
LENGTH OF SHIFT	.35 (.10)	.09 (.18)	.08 (.18)
STAFFING	-.01 (.01)	-.02 (.02)	-.02 (.02)
O1YREXP	-.03*** (.01)	-.04** (.02)	-.04** (.02)
TDISCR	-.001 (.001)	-.002 (.002)	-.002 (.002)
DAYSHIFT	-.62**** (.16)	-.75*** (.28)	-.81*** (.28)
AFTSHIFT	-.62**** (.16)	-.96*** (.32)	-1.01*** (.33)
LOWDIST	-.14 (.15)	.05 (.25)	.07 (.25)
MEDDIST	-.06 (.15)	.02 (.26)	.37 (.26)
Constant	1.28* (.73)	3.82** (1.52)	4.12*** (1.53)
Alpha[3]	1.28**** (.13)	4.11**** (.27)	4.08**** (.27)
Model Chi-square	424.4****	11137.7****	11121.8****
N	593	593	590

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized POISSON (negative binomial) regression coefficient.
[2]Standard error.
[3]Overdispersion parameter for negative binomial model.

Table 8.24: Multivariate (POISSON) regression for categorical TIF (RIDESEQ, NUMDAYS, NUMBEATS) & SUSPI

	NSUSPI			TSUSPI	
	(1a)	(1b)	(1c)	(2a)	(2b)
EARLYSEQ	.22[1] (.17)[2]	----	----	.48* (.27)	----
MIDSEQ	.53**** (.15)	----	----	.89**** (.26)	----
EARLYDAY	----	.31* (.18)	----	----	.63** (.30)
MIDDAYS	----	.52**** (.16)	----	----	.81*** (.27)
HIBEAT	----	----	-.15 (.18)	----	----
LENGTH OF SHIFT	.04 (.10)	.04 (.10)	.03 (.10)	.11 (.17)	.09 (.18)
STAFFING	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.02 (.02)	-.03 (.02)
O1YREXP	-.03*** (.01)	-.03*** (.01)	-.03*** (.01)	-.05*** (.02)	-.05*** (.02)
TDISCR	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.002 (.001)	-.002 (.001)
DAYSHIFT	-.58**** (.17)	-.56**** (.17)	-.63**** (.16)	-.59** (.28)	-.61** (.29)
AFTSHIFT	-.73**** (.17)	-.68**** (.17)	-.63**** (.17)	-1.05**** (.33)	-.93*** (.33)
LOWDIST	-.19 (.15)	-.17 (.16)	-.134 (.154)	-.04 (.25)	.06 (.25)
MEDDIST	-.05 (.15)	-.05 (.15)	-.064 (.145)	-.01 (.28)	.03 (.27)
Constant	1.01 (.71)	1.02 (.69)	1.37* (.74)	2.70* (1.40)	2.90** (1.45)
Alpha[3]	1.22**** (.14)	1.22**** (.14)	1.28**** (.13)	4.01**** (.28)	4.04**** (.28)
Model Chi-square	400.0****	400.4****	424.4****	10854.2****	10927.2****
N	590	590	590	590	590

*p<.1
** p<.05
***p<.01
****p<.001

[1]Unstandardized POISSON (negative binomial) regression coefficient.
[2]Standard error.
[3]Overdispersion parameter for negative binomial model.

Table 8.25 – Summary of multivariate analysis for the ride level analysis: comparing hypothesized effects and multivariate findings for "goofing off"

	Hypothesized effect	Multivariate findings	
		NGOOF	TGOOF
Qualitative coding			
SC	(-)	(+)	n.s.
SCBRK	(-)	n.s.	(+)
SAFE	??	(-)	n.s.
OBSHELP	(+)	----	n.s.
Observer sex			
MO1MOBS	??	n.s.	n.s.
MO1FOBS	??	n.s.	n.s.
FO1MOBS	??	(+)	n.s.
Continuous TIF			
OBS_O1	??	n.s.	n.s.
ANY_OBS	??	(+)	----

Table 8.26 – Summary of multivariate analysis for the ride level analysis: comparing hypothesized effects and multivariate findings for two measures of aggressive patrol

	Hypothesized effect	Multivariate findings			
		NOINIT	TOINIT	NSUSPI	TSUSPI
Qualitative coding					
SAFETY	(-)	----	----	(+)	n.s.
MORE PROACT (officer stated chg)	(+)	n.s.	----	----	----
AT EASE	(+)	n.s.	n.s.	----	----
TIF	??	----	----	n.s.	n.s.
TIFINTER	??	(+)	(+)	(-)	n.s.
Observer sex					
MO1MOBS	??	n.s.	(-)	n.s.	n.s.
MO1FOBS	??	n.s.	(-)	(+)	n.s.
FO1MOBS	??	n.s.	n.s.	(+)	(+)
Status congruency					
SCONGRU2	(+)	(+)	----	----	----
Continuous TIF					
OBS_O1	??	(+)	(+)	n.s.	n.s.
ANY_OBS	??	(+)	(+)	n.s.	n.s.
RIDSEQ	??	----	----	n.s.	(-)
NUMDAYS	??	----	----	----	(-)
NUMBEATS	??	(+)	(+)	----	----
Categorical TIF					
COBS_O1	??	(-)	(-)	----	----
CANY_OBS	??	(-)	(-)	----	----
EARLYSEQ	??	----	----	n.s.	(+)
MIDSEQ	??	----	----	(+)	(+)
EARLYDAY	??	----	----	(+)	(+)
MIDDAYS	??	----	----	(+)	(+)
HIBEAT	??	----	----	n.s.	----

Table 9.1 – Variable description and descriptive statistics: the qualitative coding and interride variation in patrol officer behavior (quarter shift)

	Description	Mean	Std. Dev.	N
Dependent var's				
NGOOFQ	Interval variable – number of times an officer takes breaks or runs errands over the course of one quarter of a shift	1.14	1.27	2488
NOINITQ	Interval variable – number of officer initiated events over the course of one quarter of a shift (excluding general motorized patrol)	6.22	3.69	2485
NSUSPIQ	Interval variable – number of events an officer spends investigating suspicious circumstances over the course of one quarter a shift	.44	1.10	2488
Independent var's				
QTR	Interval variable - quarter of the shift: 1=first quarter; 2=second quarter; 3=third quarter; 4=fourth quarter	2.50	1.12	2488
Qualitative coding				
Safety (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer expresses a concern about safety over the course of the shift	.08	.28	2488

Table 9.1 – Variable description and descriptive statistics: the qualitative coding and interride variation in patrol officer behavior (quarter shift) – cont'ed

OBSHELP	Dichotomous variable – 0=no indication; 1=observer helps patrol officer (all cases)	.12	.32	2488
HELPPW	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with police work.	.09	.29	2488
HELPARR	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with an arrest.	.03	.16	2488
TIF (all cases)	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior changed over time	.17	.37	2488
TIFINTRA	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior changed over the course of the shift (intraride)	.14	.34	2488

Table 9.2 – Variable description and descriptive statistics (ride segment – quarter shift): observer sex and status congruency

	Description	Mean	Std. Dev.	N
Observer sex				
OBSSEX	Dichotomous variable – 0=female; 1=male.	.54	.50	2488
MO1FOBS	Dichotomous variable – 0=other; 1= male officer and female observer	.37	.48	2488
Status congruency				
SCONGRU	Ordinal variable – 0=officer and observer are different age, sex, education, and observer does not aspire to law enforcement; 4=observer and officer are same age (within 5 yrs), sex, education (B.S. or better) and observer aspires to be law enforcement officer.	1.29	.93	2217
SCONGRU2	Ordinal variable – 0=officer and observer are different age and sex and have different levels of education; to 3=officer and observer are same age (within 5 years), sex, and education level (B.S. or better)	.85	.78	2488

Table 9.3 – Variable description and descriptive statistics (ride segment – quarter shift): continuous and categorical TIF

	Description	Mean	Std. Dev.	N
Time in the field (TIF)				
Continuous TIF				
OBS_O1	Interval variable – Number of times an officer rode with the *same* observer	1.36	.91	2484
ANY_OBS	Interval variable – Number of times an officer rode with *any* observer	2.21	1.55	2484
NUMBEATS	Interval variable – Number of beats an observer rode in.	4.24	1.17	2476
Categorical TIF				
COBS_O1	Dichotomous variable – 0=other; 1=first time an officer rode with *same* observer.	.78	.41	2484
CANY_OBS	Dichotomous variable – 0=other; 1=first time an officer rode with *any* observer	.44	.50	2484
HIBEAT	Dichotomous variable – 0=observers who rode in 2-5 beats; 1=observers who rode in 6-8 beats.	.11	.31	2476

Table 9.4 – Variable description and descriptive statistics (ride segment – quarter shift): control variables

	Description	Mean	Std. Dev.	N
Control variables				
SHIFTIME	Interval variable – Length of shift (in hours)	8.44	.80	2488
STAFFING	Interval variable – Staffing level per shift	17.5	5.43	2480
O1YREXP	Interval variable – Number of years of experience as law enforcement officer	8.50	6.80	2369
TDISCR	Interval variable – Total discretionary time per ride segment (in minutes)	84.7	30.2	2488
DAYSHIFT	Dichotomous variable – 0=other; 1=day shift	.34	.47	2488
AFTSHIFT	Dichotomous variable – 0=other; 1=afternoon shift (or 2nd shift)	.29	.45	2488
LOWDIST	Dichotomous variable – 0=other; 1= low level of socioeconomic distress	.33	.47	2488
MEDDIST	Dichotomous variable – 0=other; 1=medium level of socioeconomic distress	.25	.43	2488

Table 9.5: Overview of bivariate ride segment bivariate analysis:[1] quarter shift

	NGOOFQ		NOINITQ		NSUSPIQ	
	β	β * QTR	β	β * QTR	β	β * QTR
QTR		----	(-)	----		----
Qualitative coding						
SAFE	(-)	----		----		----
HELP		----		----		----
HELPPW		----		----		----
HELPARR		----		----		----
TIF		----		----	(-)	----
TIFINTRA		----		----		----
Observer sex						
OBSSEX		----		----		----
MO1FOBS		----		----		----
Status congruency						
SCONGRU		----	(+)	----		----
SCONGRU2		----	(+)	----		----
Continuous TIF						
OBS_O1			(+)		(-)	
ANY_OBS	(+)		(+)		(-)	
NUMBEATS	(+)		(+)			
Categorical TIF						
COBS_O1			(-)		(+)	
CANY_OBS			(-)			
HIBEAT			(+)			

[1] Based on full model of QTR, IV, & interaction term from multivariate PRM or NBRM.

Table 9.6: Overview of ride segment multivariate analysis: quarter shift

	NGOOFQ		NOINITQ		NSUSPIQ	
	QTR	β	QTR	β	QTR	β
QTR	----	----	(-)	----	----	----
Qualitative coding						
SAFE	n.s.	*(-)*[1]	----	----	----	----
TIF	----	----	----	----	n.s.	n.s.
Status congruency						
SCONGRU	----	----	(-)	n.s.	----	----
SCONGRU2	----	----	(-)	n.s.	----	----
Continuous TIF						
OBS_O1	----	----	(-)	*(+)*[1]	n.s.	n.s.
ANY_OBS	n.s.	n.s.	(-)	*(+)*[1]	n.s.	(-)
NUMBEATS	n.s.	(+)	(-)	*(+)*[1]	----	----
Categorical TIF						
COBS_O1	----	----	(-)	n.s.	n.s.	n.s.
CANY_OBS	----	----	(-)	*(-)*[1]	----	----
HIBEAT	----	----	(-)	(+)	----	----

[1] Ride segment multivariate findings are identical to ride level multivariate findings in the previous chapter (Chapter 8).

Table 9.7: Multivariate (POISSON) regression for intraride variation in patrol officer behavior – quarter shift and officer initiated behavior

	NOINITQ
QTR	-.04*** (.01)
LENGTH OF SHIFT	-.03** (.01)
STAFFING	-.01*** (.002)
O1YREXP	-.01**** (.002)
TDISCR	.01**** (.0004)
DAYSHIFT	.10** (.03)
AFTSHIFT	.11*** (.03)
Constant	1.55*** (.10)
Alpha[1]	.11*** (.01)
Model Chi-square	418.7***
N	2346

* p<.05
** p<.01
***p<.001

[1] Overdispersion parameter for negative binomial model.

Table 9.8 – Variable description and descriptive statistics: the qualitative coding and intraride variation in patrol officer behavior (ride segment - first hour of shift)

	Description	Mean	Std. Dev.	N
Dependent var's				
NGOOFH1	Interval variable – amount of time an officer spends taking breaks or running errands (1st hour versus the rest of the shift)	2.27	2.80	1250
NOINITH1	Interval variable –amount of time an officer spends with officer initiated events (excluding general motorized patrol) (1st hour versus the rest of the shift)	12.36	10.80	1250
NSUSPIH1	Interval variable –amount of time an officer spends investigating suspicious circumstances (1st hour versus the rest of the shift)	.88	1.86	1250
Independent var's				
HOUR1	Dichotomous variable – 0=other; 1=event occurred during the first hour of the shift.	.50	.50	1250
Qualitative coding				
Safety (all cases)	Dichotomous variable – 0=no indication; 1=patrol officer expresses a concern about safety over the course of the shift	.08	.28	1250

Table 9.8 – Variable description and descriptive statistics: the qualitative coding and intraride variation in patrol officer behavior (ride segment - first hour of shift) – cont'ed

OBSHELP	Dichotomous variable – 0=no indication; 1=observer helps patrol officer over the course of the shift (all cases)	.12	.32	1250
HELPPW	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with police work over the course of the shift.	.09	.29	1250
HELPARR	Dichotomous variable – 0=no indication; 1=observer helps patrol officer with an arrest over the course of the shift	.03	.16	1250
TIF (all cases)	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior changed over time	.17	.37	1250
TIFINTRA	Dichotomous variable – 0=no indication; 1=observer documented that patrol officer's behavior over the course of the shift (intraride)	.14	.34	1250

Table 9.9 – Variable description and descriptive statistics (ride segment – first hour): observer sex and status congruency

	Description	Mean	Std. Dev.	N
Observer sex				
OBSSEX	Dichotomous variable – 0=female; 1=male.	.54	.50	1250
MO1FOBS	Dichotomous variable – 0=other; 1= male officer and female observer	.37	.48	1250
Status congruency				
SCONGRU	Ordinal variable – 0=officer and observer are different age, sex, education, and observer does not aspire to law enforcement; 4=observer and officer are same age (within 5 yrs), sex, education (B.S. or better) and observer aspires to be law enforcement officer.	1.29	.93	1114
SCONGRU2	Ordinal variable – 0=officer and observer are different age and sex and have different levels of education; to 3=officer and observer are same age (within 5 years), sex, and education level (B.S. or better)	.85	.78	1250

Table 9.10 – Variable description and descriptive statistics (ride segment – first hour): continuous and categorical TIF

	Description	Mean	Std. Dev.	N
Time in the field (TIF)				
Continuous TIF				
OBS_O1	Interval variable – Number of times an officer rode with the *same* observer	1.36	.91	1248
ANY_OBS	Interval variable – Number of times an officer rode with *any* observer	2.21	1.55	1248
NUMBEATS	Interval variable – Number of beats an observer rode in.	4.24	1.17	1244
Categorical TIF				
COBS_O1	Dichotomous variable – 0=other; 1=first time an officer rode with *same* observer.	.79	.41	1248
CANY_OBS	Dichotomous variable – 0=other; 1=first time an officer rode with *any* observer	.44	.50	1248
HIBEAT	Dichotomous variable – 0=observers who rode in 2-5 beats; 1=observers who rode in 6-8 beats.	.11	.31	1244

Table 9.11 – Variable description and descriptive statistics (ride segment – first hour): control variables

	Description	Mean	Std. Dev.	N
Control variables				
SHIFTIME	Interval variable – Length of shift (in hours)	8.44	.83	1250
STAFFING	Interval variable – Staffing level per shift	17.5	5.43	1246
O1YREXP	Interval variable – Number of years of experience as law enforcement officer	8.49	6.79	1190
TDISCR	Interval variable – Total discretionary time per ride segment (in minutes)	180.6	149.7	1250
DAYSHIFT	Dichotomous variable – 0=other; 1=day shift	.34	.47	1250
AFTSHIFT	Dichotomous variable – 0=other; 1=afternoon shift (or 2nd shift)	.29	.45	1250
LOWDIST	Dichotomous variable – 0=other; 1= low level of socioeconomic distress	.33	.47	1250
MEDDIST	Dichotomous variable – 0=other; 1=medium level of socioeconomic distress	.25	.43	1250

Table 9.12: Overview of bivariate ride segment bivariate analysis: [1] first hour versus rest of shift

	NGOOFH1		NOINITH1		NSUSPIH1	
	β	β * H1	β	β * H1	β	β * H1
HOUR1	(-)	----	(-)	----	(-)	----
Qualitative coding						
SAFE	(-)					
HELP						
HELPPW						
HELPARR						
TIF					(-)	
TIFINTRA						
Observer sex						
OBSSEX						
MO1FOBS						
Status congruency						
SCONGRU			(+)			
SCONGRU2	(+)[2]		(+)	(+)		
Continuous TIF						
OBS_O1		----	(+)	----	(-)	----
ANY_OBS	(+)	----	(+)	----	(-)	----
NUMBEATS		----	(+)	----		----
Categorical TIF						
COBS_O1					(+)[2]	
CANY_OBS			(-)			
HIBEAT			(+)[2]			

[1] Based on full model of HOUR1, IV, & interaction term from multivariate PRM or NBRM.
[2] P<.05 when multiplicative interaction term is dropped from the model.

Table 9.13: Overview of ride segment multivariate analysis: first hour versus rest of shift

	NGOOFH1		NOINITH1		NSUSPIH1	
	HOUR1	β	HOUR1	β	HOUR1	β
HOUR1	(-)	----	(-)	----	(-)	----
Qualitative coding						
SAFE	(-)	*(-)*[1]	----	----		
TIF	----	----	----	----	(-)	n.s.
Status congruency						
SCONGRU	----	----	(-)	n.s.	----	----
SCONGRU2	(-)	n.s.	(-)	n.s.[2]	----	----
Continuous TIF						
OBS_O1		----	(-)	*(+)*[1]	(-)	n.s.
ANY_OBS	(-)	n.s.	(-)	*(+)*[1]	(-)	(-)
NUMBEATS		----	(-)	*(+)*[1]	----	----
Categorical TIF						
COBS_O1	----	----	----	----	(-)	n.s.
CANY_OBS	----	----	(-)	*(-)*[1]	----	----
HIBEAT	----	----	(-)	n.s.	----	----

[1] Ride segment multivariate findings are identical to ride level multivariate findings in the previous chapter (Chapter 8).
[2] Both SCONGRU2 & the multiplicative interaction term were not significant at the .05 level.

Table 9.14: Multivariate (POISSON) regression for intraride variation in patrol officer behavior – patrol officer behavior for first hour versus rest of shift

	NGOOFH1	NOINITH1	NSUSPIH1
HOUR1	-1.26*** (.14)	-.84*** (.07)	-2.45*** (.34)
LENGTH OF SHIFT	.04 (.03)	-.02 (.01)	-.06 (.08)
STAFFING	-.004 (.005)	-.01*** (.002)	-.01 (.01)
O1YREXP	.001 (.005)	-.01*** (.002)	-.04*** (.01)
TDISCR	.002*** (.0004)	.003*** (.0002)	.0005 (.001)
DAYSHIFT	.33*** (.07)	.10** (.04)	-.61*** (.14)
AFTSHIFT	.15* (.07)	.12*** (.03)	-.63 (.15)
Constant	.19 (.25)	2.47*** (.13)	1.68** (.64)
Alpha[1]	.24*** (.03)	.10*** (.01)	1.60*** (.16)
Model Chi-square	169.5***	565.7***	463.5***
N	1186	1186	1186

* p<.05
** p<.01
***p<.001

[1] Overdispersion parameter for negative binomial model.

Table 10.1 – Summary of multivariate findings for qualitative coding

Qual coding	Arrest	Use of force	NGOOF	TGOOF	NOINIT	TOINIT	NSUSPI	TSUSPI
SC	----[1]	----	(+)	n.s.[2]	----	----	----	----
SCBRK	----	----	n.s.	(+)	----	----	----	----
SAFE	(-)	----	(-)	n.s.	----	----	(+)	n.s.
MORE PROACT (officer stated chg)	----	----	----	----	n.s.	----	----	----
AT EASE	----	----	----	----	----	----	n.s.	n.s.
OBSHELP	----	(+)[3]	----	n.s.	----	----	----	----
HELPPW	----	(+)[3]	----	----	----	----	----	----
HELPARR	----	(+)[3]	----	----	----	----	----	----
TIF	----	----	----	----	----	----	n.s.	n.s.
TIFINTER	----	----	----	----	(+)	(+)	(-)	n.s.

[1] Multivariate model was not computed for this measure of reactivity.
[2] Measure of reactivity was not significant at .1 level in multivariate model.
[3] Restraint (firm grip or non pain restraint) versus no force.

Table 10.2 – Summary of multivariate findings for observer sex and status congruency

	Arrest	Use of force	NGOOF	TGOOF	NOINIT	TOINIT	NSUSPI	TSUSPI
Observer sex								
MO1MOBS	(-)	----[1]	n.s.[2]	n.s.	n.s.	(-)	n.s.	n.s.
MO1FOBS	(-)	----	n.s.	n.s.	n.s.	(-)	(+)	n.s.
FO1MOBS	(-)	----	(+)	n.s.	n.s.	n.s.	(+)	(+)
Status congruency								
SCONGRU	n.s.	----	----	----	----	----	----	----
SCONGRU2	n.s.	----	----	----	(+)	----	----	----

[1] Multivariate model was not computed for this measure of reactivity.
[2] Measure of reactivity was not significant at .1 level in multivariate model.
[3] Restraint (firm grip or non pain restraint) versus no force.

Table 10.3 – Summary of multivariate findings for TIF

	Arrest	Use of force	NGOOF	TGOOF	NOINIT	TOINIT	NSUSPI	TSUSPI
Continuous TIF								
OBS_O1	----[1]	----	n.s.[2]	n.s.	(+)	(+)	n.s.	n.s.
ANY_OBS	----	----	(+)	----	(+)	(+)	n.s.	n.s.
RIDESEQ	----	----	(-)	n.s.	----	----	n.s.	(-)
NUMDAYS	----	----	----	----	----	----	----	(-)
NUMBEATS	(-)	(m)[3]	----	----	(+)	(+)	----	----
Categorical TIF								
COBS_O1	----	(+)[4,5]	----	----	(-)	(-)	----	----
CANY_OBS	----	(+)[4]	----	----	(-)	(-)	----	----
EARLYSEQ	----	n.s.	----	----	----	----	n.s.	(+)
MIDSEQ	----	(+)[4,5]	----	----	----	----	(+)	(+)
EARLYDAY	----	----	----	----	----	----	(+)	(+)
MIDDAYS	----	----	----	----	----	----	(+)	(+)
HIBEAT	(-)	----	----	----	----	----	n.s.	----
Ride segment								
QTR	----	----	n.s.	----	(-)	----	n.s.	----
HOUR1	----	----	(-)	----	(-)	----	(-)	----

[1] Multivariate model was not computed for this measure of reactivity.
[2] Measure of reactivity was not significant at .1 level in multivariate model.
[3] Mixed findings for multivariate analysis of use of force. Both positive and negative effects for different pairwise comparison.
[4] Physical force versus no force.
[5] Physical force versus restraint.

Endnotes

[1] Mead felt that Samoans had a very simple society and a trained student could master its fundamental structure within a few months (Freeman 1983:83).

[2] For more on the tenuous nature of generalizations in anthropological fieldwork, see Geertz (1973:21).

[3] "Observers are instructed to describe each event as if they were writing a scene for the director of a dramatic production, describing the setting, the participants, and their behavior and demeanor, and anything that the officer said that might help others understand what occurred." (Mastrofski et al. 1998b:8).

[4] The classic example is when a broken thermometer invariably gives a reliable temperature.

[5] To correct for this problem, the ideological composition of the field staff should be balanced (p 35).

[6] There is a tradeoff when collecting observational data. The larger the number of events or behaviors documented, the less detailed the observational data collected (Reiss 1971:9). Also, correcting for observer bias adds a burden to observers that should be accounted for (see Ruby 1982:23).

[7] Junker (1960:12) suggested as a broad rule of thumb one hour of field observation followed by six hours for recording and analyzing field notes. Sanjek (1990:214) gave a more conservative estimate of one hour of analyzing for every three hours of observation. Spradley (1977) cited in Kirk and Miller (1986:55) suggested that fieldnotes undergo a three step process following fieldwork. The original handwritten condensed account is expanded and recorded as soon as possible after returning from the field to prevent memory decay that occurs with the passing of time (see Hammersley and Atkinson 1982:146). Finally, observers should keep a field diary that contains fears, mistakes, confusion, and/or problems that arise during fieldwork.

[8] Hammersley and Atkinson (1983:179-80) refer to 'sensitizing concepts' as a starting point to focus future data collection and facilitate linking concepts with empirical indicators.

[9] Webb et al. (1966:21-2) also described an interaction effect between sex and age.

[10] For a critique of Hunt's (1984) contention that gender is nonnegotiable, see Warren (1988:8).

[11] Hunt (1984) posits that observer sex is either a negotiable or nonnegotiable status. If sex is negotiable, then reactivity will be limited to early stages of fieldwork. If sex is nonnegotiable, then reactivity will occur throughout fieldwork. More generally, Hunt's comments about sex as a negotiable or nonnegotiable status and potential effects over time will be applied to other points of difference between observers and police officers when developing proposed hypotheses (e.g., observers' attitudes toward police and police work and status congruency).

[12] Mead (1986) argued that females can study male dominated settings depending on the degree that she has adopted the traditional female role within her own society. Female fieldworkers can be categorized as having either: (1) deeply feminine interests; or (2) be bored with women and children, work alone, and attempt to study men within male dominated settings. Not surprisingly, Mead is an example of the latter.

[13] This example is courtesy the experiences of one female POPN observer.

[14] A more serious problem involves how to deal with unwanted sexual advances or sexual harassment from research subjects (see Easterday et al. 1982; Caplan 1993:23-4; Warren 1988:38-9). Female observers studying police frequently face sexist comments and unwelcome sexual attention from male officers (Phillips and Brown 1997:199). Since turnabout is fair play, field researchers depict themselves as intellectuals and eunuchs when writing about observation of public sexual activity. There is no mention of temptation or participation although observers are only human (e.g., Johnson 1975:166; Pollner and Emerson 1983:241).

[15] See Schwartz and Schwartz (1955:347) for an analogous example from an observational study of a mental institution. The observed could react to your presence in accordance with your expectations or contrary to them. Yancey and Rainwater (1970:255), in their study of the urban underclass, reported a tendency for unemployed men to think that observers were social welfare workers. These unemployed men 'performed' and tried to convince fieldworkers that they were seriously looking for jobs and unemployment was out of their control. Similarly, mothers rarely physically punished their children until the observer had become an accepted part of the landscape.

[16] However, just because there are differences between observers and the observed or even feelings of hostility, field research is not doomed to failure. For some examples from field research, see Lofland and Lofland (1984:17) and Hyman et al. (1954:38-42). Respondent and interviewer characteristics influence responses in surveys may be limited to when the topic of inquiry is highly related to these characteristics (e.g., black interviewing a white about race relations) (see Sudman and Bradburn 1974:137-8).

[17] Worden (1989: ft 8) examined the impact of reactivity in the Police Services Study (PSS) and found that it had little substantive impact. Excluding cases where observers assess that their presence affected officer behavior for at least a substantial portion of the shift did not affect his findings.

[18] *Encounters* are significant face-to-face communication between patrol officers and a member of the public. The interaction qualifies as significant if: (1) it lasts for more than one minute; (2) either the officer or citizen uses physical force on one another; or (3) there are three or more verbal exchanges between citizen and patrol officer. *Activities* are anything that does not involve direct contact with the public (e.g., roll call, general patrol, traffic enforcement, home security checks, writing parking tickets, report writing, etc.). Over the course of a shift, officers often switch between different activities and encounter with citizens.

[19] These narrative accounts are qualitative or descriptive data, which were written, in a story-like fashion. Observers were instructed to pretend they were writing a description of a scene for a play or movie. If a director was trying to recreate what happened, s/he would need to know who did what and in what order events occurred. The description should be detailed enough to allow the "director" to pick a "cast" of characters that accurately reflects those involved in the encounter and give them instructions to "act" appropriately.

[20] The specification of "rides with reactivity" and "activities and encounters with reactivity" within the coding scheme also included some important corrections, backtracking, and reexamination of the descriptive data. If the ride was coded as having an activity or encounter with reactivity, I reread the entire narrative in order to identify other activities or encounters which may have been overlooked or miscoded by observers. In addition, I reread the narratives categorized more than once as having "ride level reactivity" based on the ride level coding scheme that I had developed and identified 290 additional activities and encounters with reactivity that were not coded as such. The logic behind reviewing additional descriptive data and going beyond the quantitative coding of reactivity within POPN data collection instruments was to more closely examine qualitative data within those rides which were at "higher risk" for reactivity.

[21] Each ride or shift can be broken down into a series of events as an officer switches from doing one thing to another (e.g., en route to dispatched call for service: domestic disturbance, separate and arrest suspect, wait for paddy wagon, write up report, etc.). On average, each ride would include about 49 of these events. As noted above, encounters involved police-citizen interactions, while activities did not.

[22] The coded data for each activity and encounter included items, which asked if the observer helped the patrol officer, and if the patrol officer reacted to the presence of the observer by becoming more proactive or less proactive.

[23] Appendix A provides an in-depth discussion of the complexities of the qualitative coding and the rationale for column headings within the tables for "percent rides" and "percent activities and encounters." The layout of the columns within the "percent ride" and "percent activities and encounters" tables for the rest of the chapter will follow the same format outlined in Appendix A.

[24] The difference in base rates (N=35,431 activities and encounters versus N=729 rides) explains the drastic reduction in percent from one table to another.

[25] The observer saw the ex-police officer slip the patrol officer an identification card along with his license. Thus, the patrol officer felt very uncomfortable not ticketing this man since he had clearly ran a stop sign.

[26] On a handful of occasions, a supervisor would request a private conversation with the patrol officer under observation. Typically, the supervisor would rudely order the observer to "take a break and put down the pen and pad" and then take the patrol officer aside in order to have a private conversation.

[27] During a midnight shift, one officer insisted that the observer exclude the time that he slept at the end of the shift from his notes.

[28] This definition of use of force includes all forms of physical restraint, but excludes handcuffing and patdowns.
[29] In other words, does POPN data represent the activities of an exemplary patrol officer or a normal (or randomly selected) patrol officer? In addition, it could work the other way. Officers who are able to exclude themselves from observation may be the ones who have the most pull with supervisors. As a result, these officers could be examples of the "best" rather than the "worst" patrol officers.
[30] Patrol officers would also try to get their peers to switch assignments with them and take the rider, but they were never successful. Patrol officers were having too much fun laughing at their outbursts to do the patrol officer under observation a favor.
[31] One observer described one such outburst as a "temper tantrum."
[32] In addition, during training, observers used role-playing in order to learn how to defuse patrol officer anger.
[33] The only exceptions were two instances where the patrol officer stated that they stopped the pursuit of a fleeing vehicle because of the presence of an observer. One officer stated that he would have pulled in front of the fleeing vehicle instead of staying behind it if the observer had not been with him. However, because of the danger (e.g., risk of an accident and the risk of arresting and subduing the suspect), the officer terminated the chase.
[34] "At ease" is about 13 times more likely to be recorded at the ride level within "ride form reactivity" as opposed to within activities and encounters within rides. This is because developing measures of how comfortable patrol officers were with observers was not the focus of the narratives or of the coded data on reactivity recorded for each event over the course of a shift. All cases of "at ease" at the activity and encounter level were due to my review of narratives that went beyond the coded data on reactivity.
[35] Observers were instructed to firmly but politely refuse such invitations.
[36] This is a stark contrast to patrol officers who acted self-conscious or tentative about taking breaks or running errands with observers as documented in a previous section.
[37] Departmental policy prohibited officers from working that many hours of overtime in outside details.
[38] The officer under observation was not comfortable with this situation and did not participate because "he does not want complaints on his file for fear of having a pattern of abuse on his file."
[39] MDT stands for mobile data terminal. Patrol cars were outfitted with a computer system that allowed officers to electronically obtain dispatch related information as well as to send one another messages.
[40] After the encounter, the officer told the observer she didn't have to leave. He said he wished the observer hadn't left because he would have an excuse to lock up that woman. The observer explained that she was making the situation worse and didn't want to make his job more difficult so she left. The observer also explained reactivity to the officer and said that she didn't want her presence to influence his decision to arrest.
[41] On one ride, the observer actually *motivated* the officer by complaining about the amount of time and the length of the write up for the officer's ride. The patrol officer reacted by becoming even more proactive and asking every other observer that rode with him if they hated him "since their write ups were so long."
[42] The observer did not know that the sole reason the officer was going to the shopping center was because of a comment he made until after the fact.
[43] The observer was very angry with the officers bugging him to handcuff the suspect. O1 picked up on this and said they wouldn't tell anyone and the drunk was harmless. The observer felt that the officers were hyped up from the code 1 they had just gone on because they were pretty hyper.
[44] The coded data from activities and encounters included the start and end time for every event during the shift.
[45] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.11 discussed in this section correspond to the frequency distributions in Table 6.9 for "*observers help patrol officers – all cases*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[46] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.12 discussed in this section correspond to the frequency

distributions for "*observers help patrol officers – all cases*" in Table 6.10 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[47] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "observers help patrol officers – all cases" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[48] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.11 discussed in this section correspond to the frequency distributions in Table 6.9 for "*help with police work*" for "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[49] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.12 discussed in this section correspond to the frequency distributions for "*help with police work*" in Table 6.10 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[50] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "*help with police work*" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[51] One observer even acted as an extra "nose" when asked by the officer to see if he smelled glue or gasoline during one encounter.

[52] Since, by definition, all of these events are encounters, I focus the remaining discussion on frequency counts or descriptive statistics of encounters with citizens.

[53] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "*deals with citizens*" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[54] It was clear from the narrative that the observer was not comfortable with the situation because the description of the event had a defensive tone. "This observer performed this minor police function because O1 was extremely busy. It helped in continuing to establish rapport and also put O1 at ease. By declining the request, it could have been detrimental to rapport built between O1 and this observer."

[55] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.11 discussed in this section correspond to the frequency distributions in Table 6.9 for "*gives info/advice*" for "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[56] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.12 discussed in this section correspond to the frequency distributions for "*gives info/advice*" in Table 6.10 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[57] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "*gives info/advice*" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[58] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.11 discussed in this section correspond to the frequency distributions in Table 6.9 for "*arrest/detain suspects*" for "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[59] For the previous four aspects of qualitative coding for observers helping patrol officers, it has been exactly the opposite: observers spend more time on average per shift helping patrol officers during *encounters* (see Table 6.11).

[60] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.12 discussed in this section correspond to the frequency distributions for "*arrest/detain suspects*" in Table 6.10 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[61] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "*arrest/detain suspects*" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[62] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.11 discussed in this section correspond to the frequency distributions in Table 6.9 for "*help – 2+*" for "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[63] There is overlap between the categories of "arrest/detain suspects" and "help – 2+" within Table 6.9 and subsequent tables (Table 6.10 to 5.13).

[64] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.12 discussed in this section correspond to the frequency distributions for "*help – 2+*" in Table 6.10 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[65] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.13 discussed in this section correspond to the frequency distributions for "*help – 2+*" in Table 6.10 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[66] O1 and the observer spoke quietly. O1 told the observer that the observer's involvement in the encounter would be just between O1 and the observer (even though O2 knew that the observer found the first piece of crack). While debriefing O1, the observer apologized profusely and explained that she was not allowed to become involved in police work. O1 said that it was irrelevant since he had two other pieces of crack on his own and said that observer would not be mentioned in his report. The observer agreed not to write anything in her notes about her involvement in the encounter.

[67] This could have been a common practice, but observers may have not recorded avoidance behavior by patrol officers because it is not an intuitive type of reactivity or patrol officers may have been keeping quiet about the matter.

[68] There is an item within the quantitative data that distinguishes stronger evidence of more proactive police behavior from all cases of more proactive patrol officer behavior. In addition, observers also documented within "ride form reactivity" if the patrol explicitly stated that s/he was becoming more proactive. Table 6.14 to Table 6.18 are *all cases* of more proactive patrol officer behavior, while Table 6.19 to 5.23 are cases where the officer explicitly stated that s/he was changing his/her behavior due to the presence of the observer (*officer stated change*).

[69] The coded data from activities and encounters included the start and end time for every event during the shift.

[70] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*more proactive – all cases*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[71] More specifically, 10 rides have a chain of 2 events, 8 rides have a chain of 3 events, 7 rides have a chain of 4 events, 2 rides have a chain of 5 events, 2 rides have a chain of 8 events, and 1 ride has a chain of 9 events.

[72] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*more proactive– all cases*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[73] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*more proactive – all cases*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[74] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*more proactive – all cases*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[75] More specifically, 8 rides have a chain of 2 events, 7 rides have a chain of 3 events, 3 rides have a chain of 4 events, 1 rides have a chain of 8 events, and 1 ride has a chain of 9 events.
[76] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*more proactive– all cases*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[77] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.23 discussed in this section correspond to the frequency distributions for "*more proactive – all cases*" in Table 6.20 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[78] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*show off*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[79] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*show off*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[80] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*show off*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[81] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*calls for svc*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[82] There are 6 rides with a chain of 2 events, 1 ride with a chain of 3 events, 1 ride with a chain of 5 events, and 1 ride with a chain of 6 events.
[83] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*more proactive– calls for service*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[84] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*more proactive – calls for service*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[85] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*calls for svc*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[86] More specifically, 5 rides have a chain of 2 events, 1 ride has a chain of 3 events, and 2 rides have a chain of 5 events.
[87] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*calls for svc*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[88] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.23 discussed in this section correspond to the frequency distributions for "*calls for svc*" in Table 6.20 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[89] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*aggressive patrol – officer initiated*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[90] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*aggressive patrol – officer initiated*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[91] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*aggressive patrol – officer initiated*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[92] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*aggressive patrol – officer initiated*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[93] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*aggressive patrol – officer initiated*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[94] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.23 discussed in this section correspond to the frequency distributions for "*aggressive patrol – officer initiated*" in Table 6.20 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[95] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*more proactive – general motorized patrol*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[96] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*more proactive– general motorized patrol*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[97] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*more proactive – general motorized patrol*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[98] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*more proactive– general motorized patrol*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[99] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*traffic enf*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[100] More aggressive patrol occurred in 2 rides as a chain of 2 events and 2 rides as a chain of 4 events.
[101] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*traffic enf*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).
[102] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*traffic enf*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).
[103] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*traffic enf*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).
[104] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated

activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*traffic enf*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[105] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.23 discussed in this section correspond to the frequency distributions for "*traffic enf*" in Table 6.20 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[106] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.16 discussed in this section correspond to the frequency distributions in Table 6.14 for "*tour*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[107] Tours occurred in 2 rides as a chain of 2 events, 3 rides as a chain of 3 events, and 3 rides as a chain of 4 events.

[108] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.17 discussed in this section correspond to the frequency distributions for "*tour*" in Table 6.15 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[109] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.18 discussed in this section correspond to the frequency distributions for "*tour*" in Table 6.15 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[110] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.21 discussed in this section correspond to the frequency distributions in Table 6.19 for "*tour*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[111] Tours occurred in 2 rides as a chain of 2 events and 3 rides as a chain of 4 events.

[112] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.22 discussed in this section correspond to the frequency distributions for "*tour*" in Table 6.20 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[113] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.23 discussed in this section correspond to the frequency distributions for "*tour*" in Table 6.20 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[114] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.26 discussed in this section correspond to the frequency distributions in Table 6.24 for "*less proactive – all cases*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[115] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.27 discussed in this section correspond to the frequency distributions for "*less proactive– all cases*" in Table 6.25 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[116] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.28 discussed in this section correspond to the frequency distributions for "*less proactive – all cases*" in Table 6.25 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[117] Since there are no valid cases of less proactive encounters where the officer explicitly stated s/he was becoming less proactive (see Table 6.29 and 5.30), all of the cases of "all activities and encounters" and "officer initiated encounters" are all activities.

[118] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.31 discussed in this section correspond to the frequency distributions in Table 6.29 for "*less proactive – all cases*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[119] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.32 discussed in this section correspond to the frequency distributions for "*less proactive– all cases*" in Table 6.30 for "% all activities and encounters" and "%

officer initiated activities and encounters" (column 1 and column 2 respectively).

[120] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.26 discussed in this section correspond to the frequency distributions in Table 6.24 for "*safety*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[121] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.27 discussed in this section correspond to the frequency distributions for "*safety*" in Table 6.25 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[122] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.26 discussed in this section correspond to the frequency distributions in Table 6.24 for "*self-conscious*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[123] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.27 discussed in this section correspond to the frequency distributions for "*self-conscious*" in Table 6.25 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[124] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.28 discussed in this section correspond to the frequency distributions for "*self-conscious*" in Table 6.25 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[125] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.26 discussed in this section correspond to the frequency distributions in Table 6.24 for "*vehicle pursuit*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[126] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.27 discussed in this section correspond to the frequency distributions for "*vehicle pursuit*" in Table 6.25 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[127] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.26 discussed in this section correspond to the frequency distributions in Table 6.24 for "*use of force or arrest*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[128] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.27 discussed in this section correspond to the frequency distributions for "*use of force or arrest*" in Table 6.25 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[129] The descriptive statistics (and N sizes) for "all encounters" and "officer initiated encounters" in Table 6.28 discussed in this section correspond to the frequency distributions for "*use of force or arrest*" in Table 6.25 for "% all encounters" and "% officer initiated encounters" (column 3 and column 4 respectively).

[130] Since there are no valid cases of less proactive encounters where the officer explicitly stated s/he was becoming less proactive (see Table 6.29 and 5.30), all of the cases of "all activities and encounters" and "officer initiated encounters" are all activities.

[131] The descriptive statistics (and N sizes) for "all activities and encounters" and "all encounters" in Table 6.31 discussed in this section correspond to the frequency distributions in Table 6.29 for "*use of force or arrest*" in "% rides, all activities and encounters" and "% rides, all encounters" (column 3 and column 4 respectively).

[132] The descriptive statistics (and N sizes) for "all activities and encounters" and "officer initiated activities and encounters" in Table 6.32 discussed in this section correspond to the frequency distributions for "*use of force or arrest*" in Table 6.30 for "% all activities and encounters" and "% officer initiated activities and encounters" (column 1 and column 2 respectively).

[133] Since there are no valid cases for all encounters, by process of elimination, the event must be an

activity.

[134] Since there are no valid cases for all encounters, by process of elimination, the event must be an activity.

[135] "Time in the field" is 169 times more likely to be recorded at the ride level within "ride form reactivity" as opposed to within activities and encounters within rides. This is because developing measures of how patrol officers react to the presence of the observer over time was not the focus of the narratives or of the coded data on reactivity recorded for each event over the course of a shift. All cases of "time in the field" at the activity and encounter level were due to my review of narratives that went beyond the coded data on reactivity.

[136] Observers were instructed to code an officer's attitude as: (1) *very negative* if the officer complained to supervisors, peers, or the observer about having an observer assigned to them or if the officer tried to get out of having an observer assigned to them; (2) *negative* if the officer was reluctant to engage in conversation, ignored observer's questions, was terse when answering questions, and frequently attempted to exclude observer from observing his/her behavior; (3) *neutral* if the officer was neither positive nor negative about the observer's presence; (4) *positive* if the officer willingly engaged in conversation, was attentive to observer's questions, and attempted to include observer in routine, non-dangerous events; and (5) *very positive* if the officer spoke positively to supervisor, peers, or observer about having the observer along, made special effort to explain things to observer, and made special effort to ensure observer had access to all events.

[137] The positive attitudes that patrol officers had toward observers over the course of the shift is echoed in the most common theme within the qualitative data: patrol officers are very comfortable or at ease with the presence of the observer.

[138] Observers also coded items in the citizen form which specified which citizens within encounters were reacting to their presence. Future analyses will supplement the qualitative findings of "change dynamic" and incorporate this quantitative evidence in order to develop better estimates of this phenomenon.

[139] Officers made contact with about 6,500 citizens in Indianapolis and 5,500 citizens in St. Petersburg. The citizens used in this analysis were *suspects* who came into contact with police during *non-traffic related encounters* (N=2,488 nontraffic related citizen contacts).

[140] In order to measure when and if an officer expressed self-consciousness "over the course of a shift", I combined and then aggregated to the ride or shift level two measures of reactivity derived from POPN qualitative data: (1) "ride form reactivity"; and (2) "activities and encounter with reactivity" (see column 1 of Table 5.1 for an example or Appendix A for a more in-depth discussion).

[141] Another possibility is that the testosterone charged environment of a male officer and male observer could lead to more aggressive patrol by officers compared to the other three possible combinations of officer-observer sex.

[142] In Chapter 3 and 4, I discuss the possible effects of stability of observer assignment on patrol officer behavior. NUMBEATS is simply an inverse measure of stability of observer assignment (i.e., the more beats and observer rode in, the less stable the observer's assignment).

[143] See Table 7.3.

[144] If the observer saw conflicting information (i.e., shabby and smelly appearance but lives in a home in a middle class area), they were instructed to take the "totality of cues" into account and select the category that had the best fit overall.

[145] Kruskall-Wallace nonparametric one way analysis of variance was used for all categorical independent variables in this analysis. The only continuous independent variables were measures of continuous TIF. Logistic regression was used to determine the bivariate relationship between continuous TIF and arrest, while multinomial logit was utilized to measure the bivariate relationship between continuous TIF and use of force.

[146] Table 7.5 and Table 7.6 contain a synopsis of hypothesized effects overviewed in the previous section for the qualitative coding, observer sex, status congruency, and time in the field.

[147] The bivariate analysis was used to screen out variables with nonsignificant bivariate relationships since, it was assumed, controlling for factors outlined in Table 7.4 in multivariate models would undermine these bivariate relationships even further.

[148] This is an abbreviation for *observers help officers – all cases.*

[149] This is an abbreviation for *observers help officers with police work.*

[150] This is an abbreviation for *observers help officers with arrest.*

[151] Status congruency between patrol officer and observer measured by age (within 5 years), sex, education (B.S. or better), and observer's job aspirations (law enforcement officer).

[152] Status congruency between patrol officer and observer measured by age (within 5 years), sex, education (B.S. or better).

[153] A sensitivity study was run for each multivariate equation by dropping cases with large residuals or high leverage. Footnoted comments on the results of the sensitivity study will focus on changes in either the direction and/or significance level of key independent variables which measure reactivity.

[154] Since the dependent variable (use of force) is ordinal, I first ran an ordered logit model, but found that it violated the assumption of parallel regression for every variable that had a significant bivariate relationship with use of force. Long (1997:148-9) suggests the use of multinomial logit models (MNLM) to avoid the assumption of parallel regression necessary in ordered logit models while retaining the information inherent within the ordinal dependent variable. MNLM is a straightforward extension of the binary logit model since the MNLM simultaneously estimates binary logits for every possible pairwise comparison of the outcome variable.

A sensitivity study was run for each pairwise comparison of categories of the dependent variable (use of force) by: (a) estimating logistic regression equations for each "pair" of categories of the dependent variable; and (b) dropping cases with large residuals or high leverage, recomputing the logistic equation, and then checking for any changes in the findings. Footnoted comments on the results of the sensitivity study will focus on changes in either the direction and/or significance level of key independent variables which measure reactivity.

[155] After dropping cases with large standardized residuals (i.e., greater than +/-6 and/or Cook's distance >1) in the logistic equation for "no force versus restraint", "no force versus physical force", and "restraint versus physical force", the significance level for OBSHELP became significant the .1 level.

[156] After dropping two cases with Cook's distance > 1 in the "restraint versus physical force" logistic equation for HELPPW, the significance level changed from $p=.13$ to $p<.05$.

[157] After dropping cases with standardized residuals > +/-6 and/or Cook's distance > 1, the significance level for HELPARR changes from $p<.05$ to $p<.01$ in the "no force versus restraint" equation and from $p=.39$ versus $p<.1$ in the "restraint versus physical force" logistic equation.

[158] Use of force was also collapsed into a dichotomous measure and logistic regression equations were run for OBSHELP, HELPPW, and HELPARR. All three variables are significant predictors of this dichotomous measure of use of force (officer uses physical force or not). Officers were between 79 and 93% more likely to use physical force against citizens if an observer helps an officer at some point over the course of the shift.

[159] After dropping 12 cases with standardized residuals > +/-7 and/or Cook's distance >1, the significance level for NUMBEATS changed from $p<.05$ to $p<.1$ in the logistic equation for "no force versus physical force."

[160] After dropping cases with standardized residuals > +/-5 and/or Cook's distance >1, the significance level for ANY_OBS changed from $p=.27$ to $p<.1$ in the "no force versus restraint" equation and $p=.12$ to $p<.05$ in the "restraint versus physical force" equation.

[161] MNLMs were used to simultaneously compute logistic regression equations for each possible pairwise comparison of use of force. Since use of force is ordinal, each of the two categories of "force" can be ranked in relation to one another (i.e., one level of force is "greater" than the other). A positive hypothesized effect in Table 7.21 means that there is a higher probability that an officer will use the greater level of force when ranking the two categories of force in relation to one another.

[162] A subset of the full sample of shifts or rides was utilized for this analysis (N=625 vs. 729). Rides where the length of shift was less than 7 hours were dropped from the analysis in order to give officers and observers a chance to adjust to one another over the course of almost an entire shift. In addition, two officer rides were dropped from the analysis since the presence of a second officer could, to an unknown degree, either dilute or amplify the effects of reactivity.

[163] Each shift or ride can be broken down into a series of events as an officer switches from doing one thing to another (e.g., en route to dispatched call for service: domestic disturbance, separate and arrest suspect, wait for paddy wagon, write up report, etc.). On average, each ride would include about 49 of these events. Over the course of a shift, observers coded quantitative data which not only categorized

what officers were doing (e.g., breaks, errands, aggressive patrol, etc.), but also *how long* they were doing it.

[164] General motorized patrol are occasions when the officer drives around in his/her car on patrol without any specific purpose. By definition, general motorized patrol is officer initiated. Officers often spend a great deal of time conducting this activity over the course of a shift. However, in order to develop a clearer measure of aggressive patrol, these types of events were excluded from the measures of NOINIT and TOINIT.

[165] In other words, the configuration of the qualitative data for the qualitative coding for the ride level and encounter level analysis was identical. More specifically, in order to measure, for example, if an officer expressed self-consciousness "over the course of a shift", I combined and then aggregated to the ride or shift level two measures of reactivity derived from POPN qualitative data: (1) "ride form reactivity"; and (2) "activities and encounter with reactivity" (see column 1 of Table 5.1 for an example or Appendix A for a more in-depth discussion).

[166] For a more in-depth discussion of the measures of observer sex and status congruency, see the discussion of Table 6.1 in Chapter 6.

[167] Since the hypothesized effects for NGOOF and TGOOF, NOINIT and TOINIT, and NSUSPI and TSUSPI are identical, I did not include both in Tables 7.5 and 7.6 for the sake of clarity.

[168] Kruskall-Wallace nonparametric one way analysis of variance was used for all categorical independent variables in this analysis. The only continuous independent variables were measures of continuous TIF. The methods used for these variables depended on the distribution of the dependent variables. Tobit was used for NGOOF and TGOOF since the distribution of these variables was truncated. OLS was used for NOINIT and TOINIT since it was normally distributed. POISSON was utilized for bivariate analyses of NSUSPI and TSUSPI given the rarity of these types of events and the skewed nature of its distribution.

[169] More specifically, 6 out of 12 possible bivariate comparisons were significant. By comparison, SC and SCBRK were only significant for 4 out of 12 possible bivariate comparisons.

[170] Technically, negative binomial regression models (NBRMs) were computed. NBRMs relax the restrictive assumption of PRMs which require the conditional mean of the outcome variable to equal the conditional variance by adding a dispersion parameter to the model (see Long 1997: Chapter 8).

[171] Censored or truncated distributions are the result of a systematic type of sampling error where, for example, no data can be collected for respondents at one end of the distribution of the dependent variable or the other. In other words, the distribution of the dependent variable looks normal except that one tail of the distribution has been "hacked off" (see Maddala 1992:340 for an application and Table 8.9 for a histogram of the distribution of NGOOF and TGOOF). TOBIT is typically utilized to correct regression coefficients for censored distributions based on sampling error, especially when attempting to generalize to a larger population (see Maddala 1992:338). NBRMs were also run to correct for the nonnormal distribution of the dependent variable(s) (see Gill 2001). The results from TOBIT and NBRMs models were compared to OLS results presented in this section. Since they were almost identical, results from NBRMs models will be footnoted and compared to OLS results since the truncation in NGOOF and TGOOF was not the result of sampling error.

[172] After dropping one case from the OLS model with a standardized residual greater than 5, the significance level of SC changes from $p<.1$ (in the full model) to $p<.05$.

[173] The significance level for SAFE changes from $p<.1$ in the OLS model for NGOOF (equation 1) to $p<.05$ in the negative binomial model. The coefficient for SAFE also changes from $p<.05$ in the OLS model for TGOOF (equation 2a) to $p<.1$ in the negative binomial model. Since the negative binomial model computed for equation 2a also had convergence problems, I dropped a nonsignificant variable from the model (STAFFING) instead of changing the metric of the independent or dependent variables by dividing them (one at a time) by a constant in order to get the model to converge.

[174] The significance level for the coefficient for FO1MOBS changes from $p<.05$ in the OLS model (see equation 1) to $p<.1$ in the NBRM.

[175] The significance level for the coefficient for ANY_OBS changes from $p<.1$ in the OLS model (see equation 1b) to $p=.17$ in the NBRM.

[176] Technically, negative binomial regression models (NBRMs) were computed. NBRMs relax the restrictive assumption of PRMs which require the conditional mean of the outcome variable to equal

the conditional variance by adding a dispersion parameter to the PRM (see Long 1997: Chapter 8).
[177] The unstandardized PRM regression coefficient for SAFETY was transformed in order to compute the odds ratio interpretation (see Long 1997: Chapter 8 for a more in-depth discussion). Identical transformations and odds ratios interpretations will also be included for other significant predictors of patrol officer behavior within the PRM discussed in the rest of this chapter.
[178] After dropping 2 cases with residuals > 15, the significance level for EARLYDAY changes from $p<.1$ (full model in equation 1b) to $p=.102$ (reduced model).
[179] Technically, this part of the analysis was not "bivariate." A better description would be bare minimum multivariate models. For example, for each measure of reactivity (e.g., SAFE), the measure (e.g., SAFE), QTR, a multiplicative interaction term (e.g., SAFE*QTR), and TDISCR were entered into a PRM or NBRM for each dependent variable (e.g., NGOOFQ) to correct for the nonnormal distribution of the dependent variable(s) and the error term. Multiplicative interaction terms (β*QTR) were included in these "bare minimum" multivariate models in order to see if, for example, officers were patrolling more aggressively with female observers compared to male observers net of the effects of a limited number of controls.
[180] Bivariate correlations were typically .90 and above when both centered and uncentered variables were included in these models (Neter et al. 1996; Jaccard et al. 1990).
[181] Since there were no significant interaction terms in the bivariate analysis, this example is purely for illustrative purposes.
[182] The same measures of reactivity were included in both the "quarter shift" and "first hour versus rest of shift" ride segment analysis.
[183] As noted above, a better description of this part of the analysis would be bare minimum multivariate models. For example, for each measure of reactivity (e.g., SAFE), the measure (e.g., SAFE), HOUR1, a multiplicative interaction term (e.g., SAFE*H1), and TDISCR were entered into a PRM or NBRM for each dependent variable (e.g., NGOOFH1) to correct for the nonnormal (or bimodal) distribution of the dependent variable(s) and the error term. Multiplicative interaction terms (β*H1) were included in these "bare minimum" multivariate models in order to see if, for example, officers were patrolling more aggressively with female observers compared to male observers during the first hour of the shift net of the effects of a limited number of controls.
[184] However, ANY_OBS, which was not a significant predictor of NSUSPI in the ride level analysis in Chapter 7, was a significant predictor of NSUSPI in both the "quarter shift" ride segment analysis (see Table 9.6) and the "first hour versus rest of shift" ride segment analysis (see Table 9.13).
[185] This section will focus on limitations of observational data rather than on more general issues of limited generalizability and external validity.
[186] On a more general note, the relevance of these findings are not limited to the field of criminal justice. Anthropologist, qualitative field researchers, researchers who conduct face-to-face interviews, and child development researchers who "unobtrusively" study the interactions between parents and children (to name a few) all collect and utilize observational data to further our scientific understanding of various real-world phenomenon.
[187] Van Maanen (1983) argued that any person who spends more than a trivial amount of time observing the police will quickly discover that virtually all policemen engage in activities which could get them in trouble, get them fired, or land them in jail.
[188] The suggestions for the "black box" and comparing charges and complaints against officers were made by a lieutenant from the Albany Police Department during a presentation to the Police Research Group at the University at Albany.
[189] Patrol officers in Indianapolis had MDTs in their patrol cars. They were similar to laptop computers and permitted officers to send instant messages to one another and also pulled up dispatch related information for calls for service.
[190] The layout of the columns within the "percent ride" and "percent activities and encounters" tables for the rest of the chapter will follow the same format, but most of the following examples were drawn from Table 6.1 and Table 6.2.
[191] To recap, after each shift, observers wrote up descriptive data on how officers reacted to their presence. The descriptive data for "ride form reactivity" summarized and tied together disparate pieces

of what occurred during the ride in order to give an overall assessment of the observer's presence of patrol officer behavior over the course of an entire ride or shift. In contrast, "activities and encounters with reactivity" are *events within a ride* where an officer gives indications that s/he is reacting to the presence of an observer.

[192] Police researchers over the past thirty years have utilized observational data on encounters with citizens in order to study discretionary decision making by patrol officers (e.g., the factors which influence the decision to arrest or use force against citizens). Since observational data on encounters is an important component in our understanding of discretionary decision-making by police, it is imperative to determine if reactivity is undermining the validity of this form of observational data.

[193] Although this is not the case for Table 6.1, this does occur in other "percent rides" tables (e.g., Table 6.5) and "percent activity and encounter" tables (e.g., Table 6.6) within this chapter.

[194] The large disparity between percent ride and percent events in Table 6.1 and 5.2 is due to three factors. First, the base rate for all events (N=35,431) is much larger than the base rate for all rides (N=729). As a result, for example, specific events of more proactive patrol officer behavior (see Table 6.15) were aggregated to the ride level and had greater weight given the differences in base rate between all events (N=35,431) and all rides (N=729) when these events were translated from one unit of analysis (percent events) to another (percent rides). Second, POPN instruments included items which identified events within rides where an officer was more proactive, less proactive, and helped patrol officers, but did not include items for other themes uncovered within the qualitative analysis. As a result, self-conscious (Table 6.1 and 5.2), angry (Table 6.3 and 5.4), safety (Table 6.5 and 5.6), at ease (Table 6.7 and 5.8), and time in the field (Table 6.33 and 5.34) were drawn almost exclusively from "ride form reactivity." Third, observers did not always specify events within rides which correspond to their ride-level descriptions of reactivity.

[195] The other three columns in this table are subsets of cases from column one since column one includes all events within a ride.

[196] Observer helps patrol officer with two or more of the following: (a) police work; (b) gives patrol officer information or advice; or (c) deals with citizens.

[197] Officer initiated activities & encounters minus general motorized patrol.